

Product Bulletin

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Succession Communication Server for Enterprise 1000 Release 2.0

Introduction

Succession CSE 1000 is a robust, IP-based solution that delivers the full range of proven telephony applications from Nortel Networks. Companies who are establishing a pure IP environment will benefit from the value-added capabilities that are only supported by voice over IP, including a simplified and cost-effective infrastructure, DHCP-enabled IP telephones that provide easier moves, adds & changes, support for 802.11 wireless devices, as well as support for critical business communications applications such as unified messaging, unified management, IP Contact Centers and more.

In addition, Succession CSE 1000 offers significant advantages to existing customers with Meridian 1 systems, as the two product families can be mixed in the same network, with full interworking and unified system management. The investment made by users in Meridian 1 training and configuration can be fully carried over to the Succession CSE 1000 product, providing both administrators and end users an easy way of embracing Voice over IP and the advantages of future advances in Internet Telephony.

Succession CSE 1000 Release 2.0 introduces significant enhancements in the areas of IP Peer Networking, Remote Office, VoIP desktop, core system and management solutions. Highlights of Release 2.0 include:

- Core System Enhancements and IP Peer Networking, including
 - Set-to-set VoIP media across customer WAN
 - Central numbering plan administration (H.323 Gatekeeper)
 - Increased scalability
 - Improved interoperability, including interworking with Meridian 1 Integrated IP Telephony Gateway (ITG) Trunk card (IP Trunk 3.0)
- Succession Branch Office
- Desktop Enhancements, including
 - Support for the i2002 Internet Telephone, a mid-range Internet Telephone, with integrated 3 port Ethernet Switch Module
 - Support for Nortel Networks M3900 Digital Telephone portfolio
- Management Solutions
 - Support for Optivity Telephony Manager 2.0
 - Introduction of a new web-based graphical user interface to increase the speed and efficiency of management tasks

Succession CSE 1000 is an integral part of the overall Succession portfolio of Voice over IP solutions from Nortel Networks that spans small to large enterprises as well as carrier-based solutions.

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Product Description

Overview

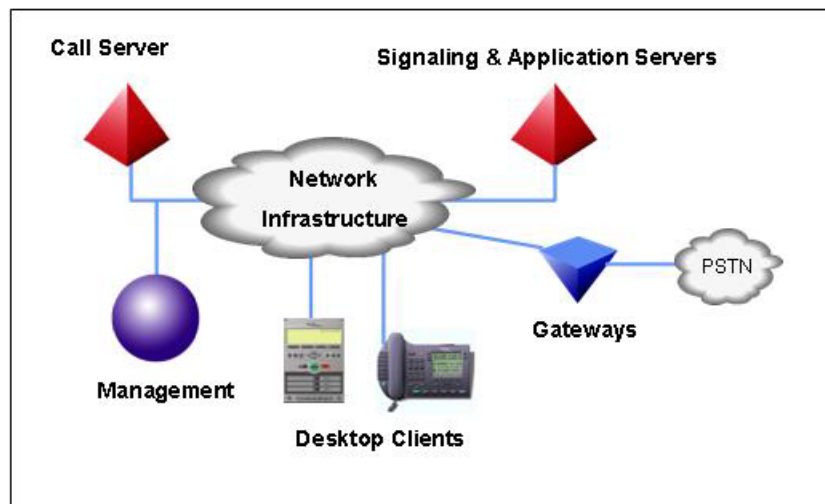
Succession CSE 1000 Core System

With Succession CSE 1000 Release 2.0 enterprise customers will have a system that supports a wide spectrum of industry-leading applications & features combined with business-grade reliability, investment protection, and global availability & support. By distributing this system over their IP WAN, they can take advantage of reduced costs from simplified management and common infrastructure. They can also benefit from next generation applications that are enabled by the IP Network.

Succession CSE 1000 Release 2.0 expands the system's capabilities to exploit the flexibility of IP Wide Area Networks allowing

- Seamless network integration
- Simplified management
- Greater flexibility in network deployment
- Reduced costs for supporting an increasingly distributed global user community

The architecture of Succession CSE 1000 Release 2.0 is depicted in the Figure below:



Call Server. The Call Server controls the call processing, and provides telephony services and features. The Call Server also acts as a database server for synchronization of configuration information with all Media Gateways.

Signaling Server. Provides an industry-standard H.323 signaling interface between Succession CSE 1000 systems across a customer WAN, or to H.323 gateways and PBXs that act as H.323 gateways.

Gateways. Succession Media Gateways provide access to PSTN trunks, or circuit switched applications and resources (e.g. analog or digital telephones). Gateways extended over a WAN to remote branches can be deployed with survivability; such deployments are called Succession Branch Office.

Infrastructure. A data infrastructure is required to support VoIP with the Succession CSE 1000 system. This may include switches, routers, media gateways and other components that form the physical infrastructure. Although Nortel Networks data equipment is preferred, the Succession CSE 1000 systems open architecture supports many different vendors' data products, provided they meet Quality of Service (QoS) requirements required for real-time telephony applications.

Desktop Clients

Nortel Networks portfolio of Internet Telephones leverage LAN/WAN connectivity for accessing the powerful feature set of the Succession CSE 1000 system. The following Internet Telephones are supported:

- i2002 - A mid-range Internet Telephone, with integrated 3 port Ethernet Switch Module
- i2004 - The Premium Internet Telephone model. Succession CSE 1000 Release 2.0 will also provide support for the second-generation i2004 telephone with an integrated three port Ethernet switch.
- i2050 - Software Phone for the PC

Nortel Networks M3900 Digital Telephone portfolio will be supported on Succession CSE 1000 Release 2.0, providing excellent investment protection and a wide choice of desktop solutions for customers to choose from.

Succession CSE 1000 also supports the following telephones/terminals:

- Digital and Analog telephones
- T.38 Fax
- Wireless telephones

System Management.

With a fully distributed IP PBX, system management becomes a key component of the overall architecture. Succession CSE 1000 brings with it an integrated management approach that unifies system components into an integrated solution. Succession CSE 1000 supports a suite of value added management capabilities that can manage multiple Succession CSE 1000 and Meridian 1 systems, thereby reducing a customer's total cost of ownership.

One component of the Management approach is OTM Release 2.0, which provides a variety of value-added features that provide management simplicity and flexible control.

Another innovative improvement is the introduction of Element Management, which allows management of many common functions of the Succession CSE 1000 from a Web Server located on the Signaling Server platform. This is accessed by means of a web browser, or by using the OTM 2.0 navigator.

CallPilot

There is a new major software release for CallPilot systems, Release 2.0, being introduced concurrently with Succession CSE 1000 Release 2. It brings over 40 new and enhanced features and capabilities to the CallPilot IPE, Tower, and Rackmount systems, expanding on the already substantial feature set and offering an even greater level of usability and functionality. CallPilot 2.0 is designed to address user's needs and extend CallPilot's leadership in the voice messaging and unified messaging industries.

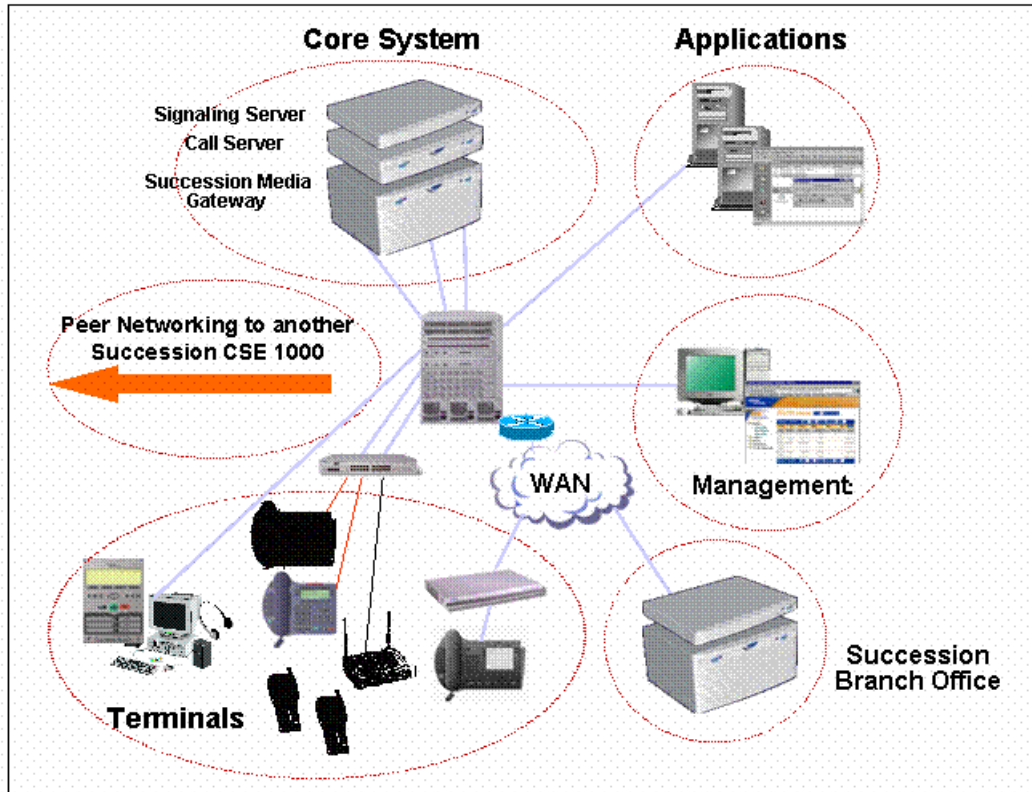
See the concurrent Bulletins for CallPilot 2.0 for details.

Description of New Features

The introduction of Succession CSE 1000 Release 2.0 expands the system's capabilities to exploit the flexibility of IP Wide Area Networks.

The following provides a brief technical overview of the new developments in the Succession CSE 1000 Release 2.0 product. The enhancements are mainly in the following areas:

- IP Peer Networking
- Succession Branch Office
- Desktop Enhancements
- Core System Enhancements
- Management Solutions



IP Peer Networking.

The IP Peer Networking feature allows deployment of the Succession CSE 1000 product across a Wide Area Network while providing a complete set of industry-leading features.

The IP Peer Networking Feature has the following components:

- Set-to-Set VoIP media across customer WAN.

This feature provides improved Voice Quality & cost savings to the customer. Whenever a connection needs to be made between Internet Telephones on different Succession CSE 1000 systems, the media (voice) path will use direct IP connections, thereby avoiding multiple transcodings between IP and TDM.

- Central Numbering Plan Administration - H.323 Gatekeeper.
The IP Peer Networking feature introduces a Gatekeeper where all Succession CSE 1000 systems in the network are registered. This eliminates the need for manual configuration of IP addresses and numbering plan information on every site.
- Removal of need for separate D-Channel Hardware. The IP Peer Networking feature eliminates the requirement to provide a physical D-Channel interface with DCH/ MSDL and ITG DCHIP hardware.
- Improved Interoperability. The Succession CSE 1000 uses standard H.323 version 3 protocol to provide for interworking with vendors that implement the same interpretation of the standard. The feature-rich MCDN protocol is tunneled through the H.323 for interworking with other Succession CSE 1000 and Meridian 1 systems.
- Supports the per-call selection of codec standards, based on the type of call. IP Peer Networking supports the following codecs:
 - G.711 A/u-law
 - G.729 A
 - G.729 AB
 - G.723.1G.711 A-law and u-law interworking is also possible.
- IP Peer Networking supports the voice-to-fax switchover protocol for T.38 Fax, by using the mode select signaling in H.323.
- IP Peer Networking supports the traditional methods of managing costs in a circuit-switched environment (for example, through BARS/NARS). IP Peer Networking also supports a method to manage costs at the Gatekeeper, using an IP environment called Least Cost Routing. With Least Cost Routing, you can assign a cost factor to the routes using Gatekeeper Element Management.

For more information on the Peer Networking capabilities, please refer to the document *IP Peer Networking* (553-3023-220).

Succession Branch Office.

The Succession Branch Office provides a means of extending Succession CSE 1000 features to one or more remotely located branch offices. The Call Server at the Main Office provides the call processing for both the main and branch offices. An H.323 Media Gateway located in the Branch Office provides access to the local PSTN, and a Signaling Server provides Peer Networking back into the CSE 1000 and the entire Network. If an IP connection to the Main Office cannot be made, an H.323 Media Gateway in the Branch Office will provide service to the telephones located at the Succession Branch Office providing survivability to remote users.

See the *Branch Office Guide* (553-3023-221) for more details on Branch Office and Virtual Office

Desktop Enhancements.

Succession CSE 1000 Release 2.0 provides the following desktop enhancements:

i2002 Internet Telephone. The i2002 comes equipped with integrated 3-port Ethernet switch. The i2002 is a physically smaller telephone than the i2004 and supports the same rich feature set available today with the i2004 Internet Telephone.

i2004 with Integrated Switch. The i2004 with the integrated 3-port Internet switch will be Generally Available in 4Q02. A separate Product Bulletin will be published to announce the launch of this next version of the i2004.

The integrated switch will remove the need for the External 3-Port Switch Module that is currently required if the telephone is to share the IP network access with a PC or another type of data device.

Network Address Translation (NAT). Many customers use NAT to provide the ability to network multiple sites with overlapping private address ranges or to route private IP addresses over a public network. With this release of the IP Line 3.0 application, support will be introduced to accommodate some common NAT implementation scenarios that apply to IP Telephones. However, note that IP Peer Networking uses H.323 protocol between Signaling Servers, which is not supported through most NAT implementations; this limitation could be overcome by using VPN tunnelling.

Network Wide Virtual Office. This feature will allow customers to “Login” to any Internet Telephone on their network using an ID and Password. Once “logged in”, the personal configuration will be downloaded to the telephone:

- All DNIs
- Key layout
- Voice mail message indicator
- Feature capabilities

IEEE 802.1 Q With Succession CSE 1000 Release 2.0, the IP Telephone will support VLAN and priority tagging of IP packets to/from the Internet Telephones.

802.1 q – VLAN ID

Helps provide a higher level of security between segments of internal networks. It is used to break larger networks into smaller parts to prevent consumption of bandwidth by broadcast and multicast traffic.

802.1 p

Provides priority classification and tagging of VoIP packets at layer 2 (Ethernet).

Corporate Directory. The Corporate Directory feature is similar to the M3900 corporate directory but it provides a network directory rather than a nodal directory. This feature is available on the i2002 and i2004 Internet Telephones, and the i2050 Software Phone.

The corporate directory database is created using OTM 2.0.

User labelled feature keys. This feature will provide M3900-like edit capabilities for soft-labelled feature keys. The i2004 Internet Telephones has six feature keys (providing 12 functions by using the SHIFT key) and the i2002 has four feature keys. This feature provides the ability of the Internet Telephone user to program the label on the feature key. This label change is saved and then displayed on the feature key. (e.g. Autodial key - currently displays either “autodial” or number. This will permit user to enter a name)

Private Zone. A new “private” classification has been added to zone configuration, which enables reservation of voice gateway channels for resource critical internet telephones. For example, a group of call center agents could be guaranteed DSP resources if desired.

Enhanced Statistics. This feature will provide additional statistics on QoS of calls connected by Call Server.

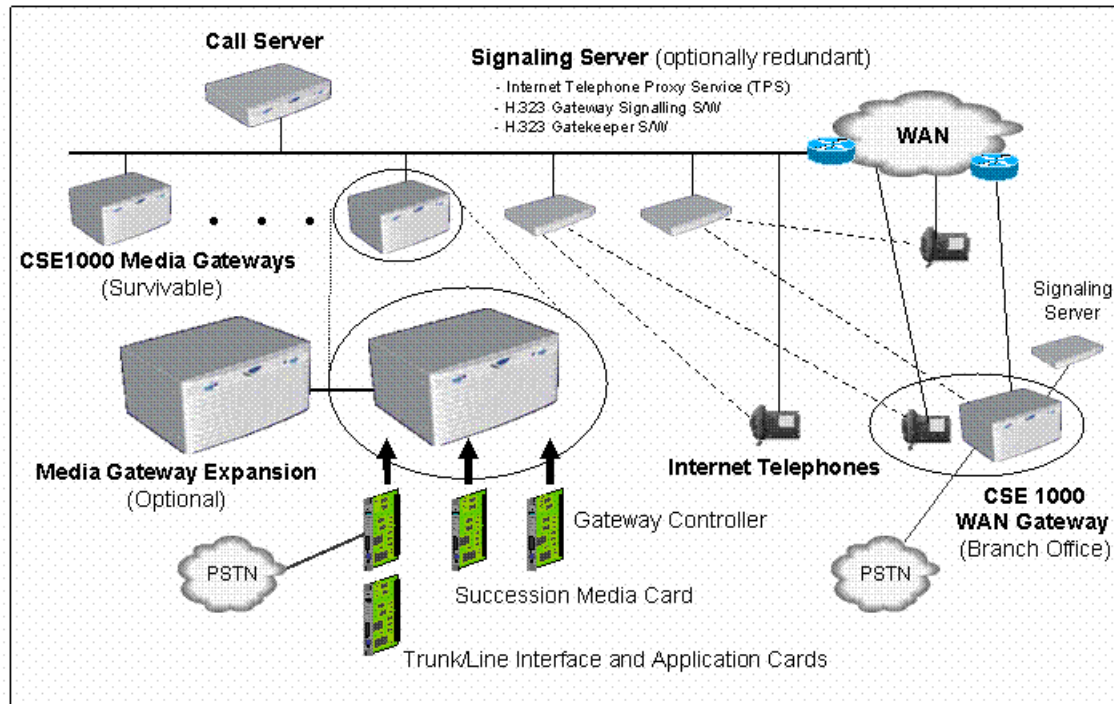
New commands will print the number of Internet phones registered on a card, a zone, a node or a Signaling Server.

New traffic printouts are also available per zone at a user configurable interval for blocked calls, bandwidth used, jitter, packet loss, delay, all attempts and completions.

Run-time configuration changes. Succession CSE 1000 release 2.0 adds the ability for most changes to be made without disabling or rebooting Succession Media Cards. The ITG Line 2.2 and earlier applications required the ITG Line card to be disabled and then enabled to activate some administrative changes, and in some case a card reboot was required for other changes to take effect.

Core System Enhancements.

The diagram below illustrates the key hardware elements of Succession CSE 1000 Release 2.



Succession CSE 1000 System Components

Scalability. The Succession CSE 1000 Release 2.0 system can support up to 1000 Internet telephones per Call Server, plus digital and analogue telephones, and trunks.

Introduction of the Signaling Server. The Signaling Server is an industry standard off-the-shelf server that provides signaling interfaces to the IP network using software components that run on the VxWorks real-time operating system. It can be installed in a load-sharing redundant configuration for higher scalability and reliability. The Signaling Server is equipped with several software components:

Terminal Proxy Server. The TPS portion of the IP Line application now resides on the Signaling Server, rather than on a line card (as in Succession CSE 1000 Release 1.1). This reduces the amount of system hardware that is required by permitting up to 1000 IP users per Signaling Server, thus improving the cost effectiveness of the system.

- With Succession CSE 1000 Release 1.1, ITG Line cards were required to register Internet Telephones to the system. Up to 96 sets could be registered to a single card.
- With Succession CSE 1000 Release 2.0, no line cards are required to register Internet Telephones. All IP phones are registered to the Signaling Server. So Succession Media Cards are required ONLY to supply DSP hardware to transcode between IP Voice Packets and Circuit Switched entities (such as analog or digital trunks).

H.323 Signaling Software. Provides an industry-standard H.323 signaling interface between Succession CSE 1000 systems across a customer WAN, or to H.323 gateways and PBX's that act as

H.323 gateways. The Meridian networking features (MCDN) are also supported over the H.323 signaling between two systems.

H.323 Gatekeeper Software. This is used to identify the IP address of Succession CSE 1000 systems and H.323 Gateways based upon a network-wide numbering plan.

IP Peer Networking feature. Introduces the Gatekeeper where all Succession CSE 1000 systems in the network are registered. This eliminates the need for manual configuration of IP addresses and numbering plan information on every site.

Introduction of the Succession Media card. The Succession Media card is used to provide Internet Telephones access to circuit switched resources such as digital or analog trunk cards. It is an 8 or 32 port single slot card that provides a pool of DSPs for media transcoding between IP voice packets and circuit switched channels. It also provides echo cancellation and compression/decompression of voice streams.

System Robustness

The Succession CSE 1000 system has been designed with a great deal of redundancy, to provide a high degree of robustness in case of network or component failures.

- Media Gateways (including Media Gateway Expansions) can be configured to be Survivable. In this case, one Media Gateway can act as an Alternate Call Server. This situation applies when Succession CSE 1000 equipment is co-located and not widely distributed. All of the Succession CSE 1000 Media Gateways are equipped with a full set of call processing software components and maintain a configuration database that is periodically synchronized with the primary Call Server. If the Call Server fails, the Media Gateway assigned as an alternate Call Server assumes role of Call Server. The Signaling Server(s) register to the Alternate Call Server and system operation resumes.

The Media Gateway which is designated as the Alternate Call Server must be configured as Survivable. Other Media Gateways can also be configured as Survivable, and these will operate in an autonomous mode if the Call Server fails.
- The Signaling Server can be made optionally redundant. In this case, the Gatekeeper, H.323 Gateway and IP Phone registration applications are completely duplicated. In addition, the Call Server assumes the Gatekeeper functions if both the primary and secondary Gatekeepers fail (third level of redundancy).
- IP Phones automatically re-register to Media Cards if primary or secondary Signaling Server fails. The Media Cards assume the Terminal proxy Server functions, up to 128 IP lines per SMC.
- If the IP WAN is down or oversubscribed, Call Server routes calls via the PSTN, if so configured.
- Branch Offices are fully survivable up to 400 IP users. IP telephones located at a Branch location, which normally receive service from the associated Main, will get full feature service from the Branch if the WAN or Main is unavailable. In this case, any resources available at the Branch (e.g. PSTN trunks) are available to such telephones. Digital and Analog telephones at the Branch are normally registered there, so they too receive full service in Survival mode.

System Management

The enhancements to the management of Succession CSE 1000 in Release 2.0 focus on further web enabling the management of the product and simplifying the management process in a Wide Area Network environment. In addition, Optivity Telephony Manager has been further enhanced to provide even more value in managing the network.

Simplified web-based management of Succession CSE elements – Succession CSE 1000 Release 2.0 introduces a new web based graphical user interface that provides an alternative to some of the traditional

overlays / CLI and simplify overall management with functionalities such as gatekeeper / IP Services and IP Peer configuration or software / firmware and patches download.

Optivity Telephony Manager (OTM) Release 2.0 offers an optional suite of value added management applications supporting networks of multiple Succession CSE 1000s and Meridian-1s.

Command-Line Interface. Succession CSE 1000 continues to be able to be administered and maintained using the traditional overlay structure.

Element Management and OTM are separate and independent. Element Management is required to manage (configure and maintain) IP Telephony parameters (In the case of ITG Line 2.x this was done by OTM). Element Management can also be used to manage route and trunk parameters (e.g. LD 14, etc). At this time, Element Management cannot perform station administration -- but OTM can. In general, Element Management is used to manage specific elements (e.g. CSE 1000), while OTM is used to manage systems from a network view. OTM 2.0 is a PC based portfolio of applications that brings value added management capabilities on networks of Succession CSE 1.x/2.0 and Meridian-1 Rls 19-24.50.

Optivity Telephony Manager (OTM) Release 2.0.

The Optivity Telephony Management (OTM) provides an integrated suite of management tools for configuration, control and analysis of Meridian 1 and Succession Communication Server for Enterprise (CSE) 1000 networks. OTM is a single-workstation management platform that can scale into a client/server architecture.

OTM is the perfect partner that simplifies the configuration of stations, Electronic Switched Networks (ESN), MDECT or ITG. Its offers tools that increase the efficiency of system maintenance, faults and traffic analysis and allows flexible reporting capabilities for call tracking, call accounting and billing activities. It is a required pre-requisite for Corporate Directory and DECT.

OTM also provides a number of "utility" applications such as LDAP Synchronization, Corporate Directory Reports, Inventory Management, Security management, Terminal Emulation, backup / restore, data buffering and access servers functionalities. As well, it allows overlay pass-through and on-line help.

OTM 2.0 also includes the following features:

- **All OTM 1.2 features supported.** Includes support for Succession CSE Release 1.x as well as Meridian 1 Release 19 through Release 25.40.
- **Succession CSE 1000 Release 2.0 concurrency.** Includes integrated access to Succession CSE Web based Element Management capability.
- **Enhanced OTM navigators (windows and web).** Gatekeepers, Call Servers and Signaling Servers are all represented in the OTM navigator with the capability to launch OTM applications or to access associated web-based element managers. A new network view called "Gatekeeper Zones" provides a "logical" view of components that are linked to a given Gatekeeper for simplified organization and control of distributed systems.
- **Multi-system billing reports (CCCR) /Telecom Billing system enhancements.** Allows network administrators to collect and cost Call Detail Records (CDR) from multiple systems and run reports against the consolidated data. Other enhancements include the capability to use latitude and longitude to determine the cost of a call between two systems, the support of transfer (X) and abandon (B) CDR records and the introduction of 15 new graph reports and 8 new web reports.
- **Web Station scheduler.** Introduces the capability to schedule a station synchronization task made via the Station Administration Web interface.
- **Courtesy change (station administration).** Allows the system to by-pass the transmission of changes when sets are busy and consequently protect the disconnection of active calls.
- **OTM security enhancements.** Allows encryption of all passwords used in the OTM database or transmitted to LDAP servers. Gives flexibility to the network administrator to determine rules for

authentication of OTM users and enhance consistency across all access types (windows / web accesses).

- **OTM backup / restore enhancements.** Includes data that were not previously supported in the full OTM backup / disaster recovery operations.

On Succession CSE 1000 Rls 2.0, OTM would be mandatory for the following functions (and optional for other cases):

- CDR collection and billing
- Corporate Directory
- Alarm management
- Web-based station administration

Succession CSE 1000 Element Management.

With the introduction of Succession CSE 1000 Release 2.0, each Signaling Server is the host of a new web server that enables local and remote accesses to new user friendly graphical web pages. This new management framework, here referred as the Succession CSE 1000 Element Manager, can be accessed directly using a web browser or using the OTM 2.0 navigator (which includes integrated links to each Succession CSE Element Manager in a given network).

The Succession CSE 1000 Element Manager increases the speed and the efficiency of management tasks by organizing parameters in logical groups where single web pages provide access to information traditionally spread into multiple overlays. The capability to “hide or show information” helps the user to focus only on the information he is interested without being distracted by too many parameters displayed at the same time.

The Succession CSE 1000 Element Manager also contributes to reduce configuration errors by providing full text description of the parameters (as well as the acronyms when such exist) and simplified choices for selecting parameters values (pre-selected defaults values, usage of drop down list of choices, indication of range values, yes / no checkbox).

The following management tasks can be performed using the Succession CSE 1000 Release 2.0 Element Manager:

- **System Status.** Offers the capability to obtain information on the Call Server software version, ISM parameters, packages list. Helps the user to perform maintenance actions on Call Server components (D-channel, MSDI, TMDI, Digital Trunk, Clock Controller, Network and Peripheral, Zone diagnostics, Trunk diagnostic, report log) and IP telephony (Syslog, Report log, OM reports, Telnet, General commands, Status, Signaling Server report log).
- **Configuration.** Configuration of customer data, trunks and routes (traditionally done using LDs 14, 15 and 16), D-channel and Common Equipment data (LD 17), digital trunk interface (LD 73), Flexible Code Restriction and Incoming Digit conversion (LD 49), zone configuration (LD 117) and IP telephony (IP Line 3.0, Signaling Server).
- **Network Numbering Plan.** Configuration of all ESN data blocks (LD 86, 87, 90) for the Call Server as well as the configuration of the Gatekeeper.
- **Software upgrades.** For IP telephony, the capability to view software and firmware versions on components, upload software or firmware to a directory on the Signaling Server, and download new versions to components.
- **Patching.** Offers the capability to download, activate, and deactivate patches for the Call Server, Media Gateway, and IP telephony.
- **System Utilities.** Includes backup and restore of databases and time and date setting.

Centralized Automatic Software Upgrade

Centralized Automatic Software Upgrade enables loading a new version of software automatically to the Media Gateways after the Call Server software is upgraded. Options are available to perform this simultaneously or sequentially (only one Media Gateway at a time).

Centralized upgrade

Centralized upgrade enables the IP telephony components (SMCs) to be upgraded from the Element Management interface. The Element Management host, the Signaling Server, is a file server for software upgrade files for the SMCs. Internet Telephones also automatically upgrade from a centralized file location (their TPS).

File uploading

File uploading enables software upgrade files and patches to be uploaded to the Element Management host, (the Signaling Server), for centralized upgrading or centralized patching. The file is uploaded from the management PC (web browser) to the Element Management host (web server).

Hardware components

A Succession CSE 1000 system contains the following major components:

- Call Server
- Media Gateway
- Media Gateway Expansion
- Signaling Server
- Branch Office
- Internet Telephones

These in turn may contain other functional hardware items.

Call Server NTDU21AC

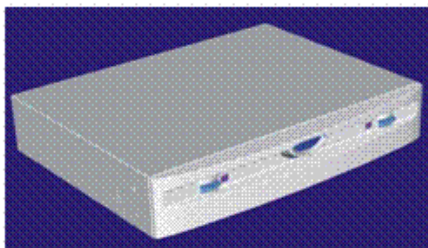
The Call Server performs the call processing and controls the trunks and telephones via the 100 BaseT connections to the Media Gateways. The Call Server contains one card slot for the Succession System Controller (SSC) and does not contain any peripheral equipment. It is assembled at the factory with one dual port 100 BaseT IP daughterboard to support two Media Gateways, and can be field expanded by adding a second dual port 100 BaseT IP daughterboard to support two more. These provide 100 BaseT LAN or point-to-point connectivity between the Call Server and Media Gateways.

- 19" Rack mount only
- Power ON/OFF Switch
- Call Processor is the Succession System Controller NTDK20GA - highly reliable proven platform
- Runs Succession Release 2 software
- Allows interworking with 3rd party applications through support of TAPI interface API's
- Supports up to 1000 registered Internet Telephones per system
- NTM400 Software Daughterboard
- Four 100 BaseT Media Gateway connectors, 3 port RS232 Serial Interface, 1 - 10BaseT Port Interface (Embedded LAN)

What's new with the Release 2.0 Call Server ?

- New cover latches, and automatic dimming of the indicator lights when the cover is removed.

Call Server view



The Call Server NTDU21AA used with Succession CSE 1000 Release 1.x can continue to be used, as can the SSC Succession System Controller NTDK20FA.

Media Gateway NTDU22AD

The Media Gateway and Media Gateway Expansion each provide card slots for TDM devices such as PSTN trunks or analog telephones. The Media Gateway connects to the call server via 100 BaseT and supports the peripheral equipment. It supports digital trunks, analog trunks, digital and analog stations and more. The interface to these traditional items from the IP realm is provided by means of Succession Media Cards, which can be inserted into any slot. The Media Gateway also provides a dedicated slot (slot 0) for a Succession System Controller (SSC) card NTDK20GA. The Media Gateway and Media Gateway Expansion are connected with two copper cables.

The Media Gateway is centrally configured from the call server for a single management point. Up to four Media Gateways can be supported by a single Call Server. Each Media Gateway can be expanded with one Media Gateway Expansion.

- 19" Rack mount only
- Equipped with a Succession System Controller (SSC) NTDK20GA (minimum vintage is FA)
- Software Daughterboard NTM400AC mounted on SSC
- Remote Security Device NTDK57DA mounted on SSC
- Single port 100 BaseT IP daughterboard NTDK99AA mounted on SSC
- Provides 3 RS232 Serial ports, and 1 - 10baseT Ethernet port (Embedded LAN)
- Provides Power Fail Transfer
- Media Gateways can be configured for Survivability, or to act as an Alternate Call Server.
- There are 4 identical slots in each Media Gateway, which can support a wide range of circuit cards, e.g.
 - Maximum of four digital trunks per Media Gateway
 - One clock controller needed for every Media Gateway with a Digital Trunk
 - Maximum of four analog or digital line cards
 - Maximum of four analog trunks
 - Maximum of four Succession Media Cards.
 - CallPilot IPE 201i

Note: The legacy 24-port ITG-P card, once upgraded to IP Line 3.0 software, provides the same service as the Succession Media Card. In this document, unless otherwise noted, the ITG-P card can be substituted for the Succession Media Card.

What's new with the Release 2.0 Media Gateway?

- New cover latches, and automatic dimming of the indicator lights when the cover is removed.
- A new backplane that provides an additional universal card slot.

Previously, slot 4 was not usable as a universal card slot, and could only be used to accommodate the "second half" of double width cards. It is now fully usable.

- A new 10/100BaseT interface.

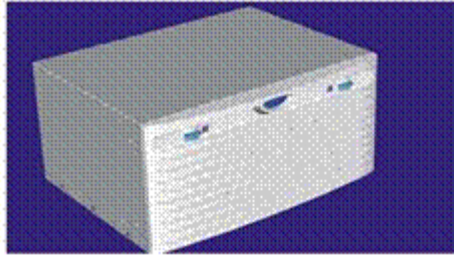
The back panel of the cabinet now includes an RJ45 connector for the ELAN link. This can be used instead of the 9-pin connector that was previously used, although the 9-pin connector is still usable. The SSC senses which connector is being used. Using the RJ45 connector eliminates the need for a MAU, which is no longer supplied with the Media Gateway.

Note that the use of this new RJ45 connector requires the NTDK20GA SSC in the Media Gateway. Users of the NTDK20FA will still have to use the 9-pin connector and the MAU.

Also note that the green LED on the RJ45 connector will not illuminate, even when the ELAN link is established. This is normal. An equivalent green Link LED on the NTDK20GA will illuminate instead.

This new interface is available only on the Media Gateway, and not on the Call Server.

Media Gateway view



The Media Gateway NTDU22AA used with Succession CSE 1000 Release 1.x can continue to be used. However, slot 4 can only be used as the second slot of a dual width card.

Media Gateway Expansion NTDU23AC

One Media Gateway Expansion can optionally be added to each Media Gateway by using copper cables between the two.

- 19" Rack mount
- Built in international power supply (Non field replaceable).
- UPS power backup only
- There are 4 identical slots in each Media Gateway, which can support a wide range of IPE cards, e.g.
 - Maximum of four analog or digital line cards
 - Maximum of four analog trunks
 - Maximum of four Succession Media Cards.
 - CallPilot IPE 201i

The Media Gateway Expansion NTDU23AA used with Succession CSE 1000 Release 1.x can continue to be used.

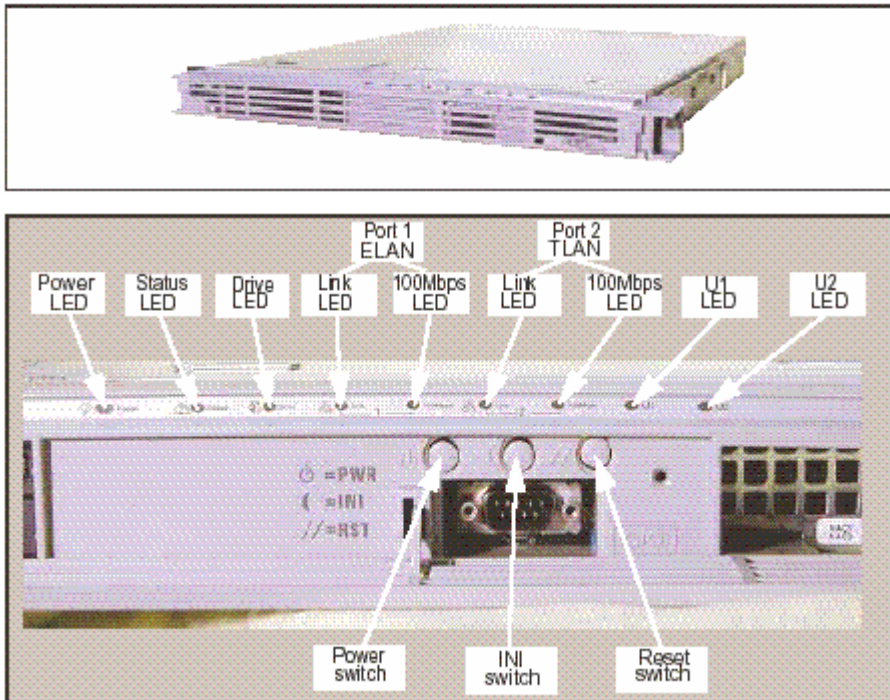
Media Gateway to Media Gateway Expansion Cabling

One Media Gateway Expansion can be added to each Media Gateway by using the DS-30X and CE-MUX copper cables between the two.

Signaling Server

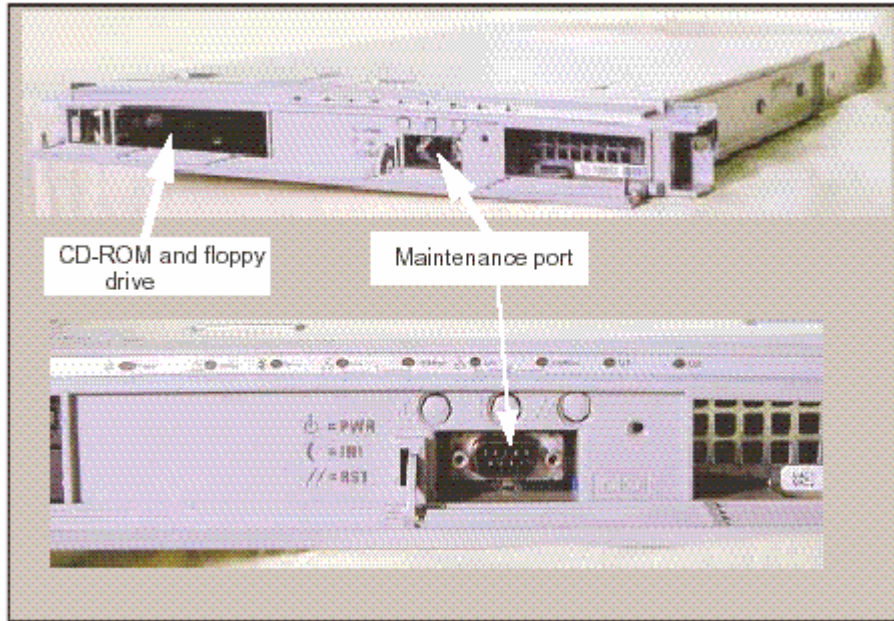
The Signaling Server is a commercially available server, and is illustrated in the figure below. There are no user serviceable components in the Signaling Server, and opening it voids the warranty.

The Signaling Server, although a standard Pentium-based computer, has been carefully specified and selected by Nortel Networks to provide all of the required features and performance. Servers acquired other than through Nortel Networks are not supported for use as a Signaling Server.



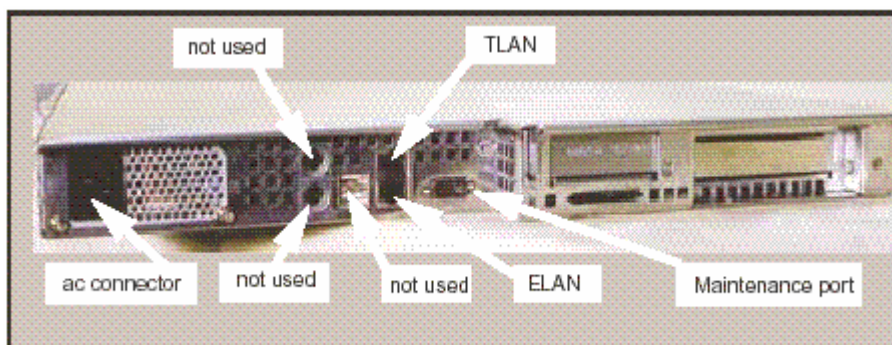
The Signaling Server front features include the following:

- Power LED green - ac power on. Power LED off - ac power off.
- Status LED red - CPU stopped. Status LED off - CPU running.
- Drive LED flashing green - Hard Drive or CD ROM Drive active. Drive LED off - Hard Drive or CD ROM Drive inactive.
- Link LED green - Ethernet port active. Link LED off - Ethernet port inactive.
- 100Mbps green LED - Ethernet port running at 100Mbps. 100Mbps LED off - Ethernet port running at 10Mbps.
- The power switch controls the ac power to the Signaling Server.
- The Reset switch invokes a cold reboot of the Signaling Server.
- The INI switch is reserved for future use.



The Signaling Server front features, shown in the picture above, are as follows:

- The CD-ROM drive is used to load the Signaling Server Software: software files for the Signaling Server, SMCs, and Internet Telephones. The Signaling Server software includes the Signaling Server operating system, and applications, and all Element Management web server files.
- The floppy drive is used for saving the Signaling Server database.
- The front Maintenance port does not display system messages. However, this port provides a login session for Command Line Interface (CLI) management.



The Signaling Server rear features, shown in the picture above, are as follows:

- The AC power cord connector provides an AC connection to the Signaling Server.
- The 100BaseT TLAN connector is used for telephony signaling traffic.
- The 100BaseT ELAN connector is used for connection between the various Succession CSE 1000 components.

Note: The Signaling Server TLAN/ELAN ports connect through a Layer 2 Switch to access other Succession CSE 1000 chassis TLAN/ELAN ports.

- The rear maintenance port is the primary port for maintenance and administration terminals.
- The remaining ports (USB and PSZ) are not used for any Succession CSE 1000 function. Do not plug any device into these ports.

Succession Branch Office

The basic hardware of a Branch Office includes the H.323 WAN Gateway and the Signaling Server. The hardware of the WAN Gateway chassis is identical to the Media Gateway, and it provides 4 slots of support for the same range of circuit cards:

- Succession Media Cards
- Digital Trunk Cards
- Analog Trunk Cards
- Analog Line Cards
- Digital Line Cards

The SSC in the H.323 WAN Gateway is mandatory, and occupies a dedicated slot (slot 0). In Normal Mode, the SSC acts as a telephony services controller for WAN Gateway elements, while in Local (Survival) Mode it acts as a Call Server for the Internet Telephones and other connected devices.

The 10/100BaseT connection for the Embedded Local Area Network (ELAN) and Telephony Local Area Network (TLAN), where the WAN gateway exists, is on the back of the H.323 WAN Gateway chassis.

Note 1: The legacy 24-port ITG-P card, once upgraded to IP Line 3.0 software, provides the same service as the Succession Media Card. In this document, unless otherwise noted, the ITG-P card can be substituted for the Succession Media Card.

Note 2: The Succession Media Cards act exclusively as Voice Gateway Media Cards (VGMCs) in the Branch Office.

H.323 WAN Gateway Expansion

The H.323 WAN Gateway can be connected by copper wire to the H.323 WAN Gateway Expansion Chassis for added capacity. This chassis is identical to the Media Gateway Expansion.

- The slot numbers are from 7 to 10. Use any double-slot card in slot 10.
- No slot is dedicated to a specific card type.
- Digital trunk cards are not supported in the Expansion chassis.
- There is no Ethernet port on the back of the Expansion chassis, as it is connected to the H.323 WAN Gateway with copper wire.

Signaling Server

The Signaling Server is a required piece of equipment at the Branch Office. The Signaling Server provides the following three functions in the Branch Office:

- IP Peer Networking, or H.323 signaling from the Branch Office to the Main Office and other Branch Offices.
- Internet Telephone registration to the Telephony Proxy Server (TPS) during Local Mode for survivability.
- Web server for Element Management.

Telephones

The Succession CSE 1000 Branch Office supports the use of the i2002, i2004 and the i2050 Internet Telephones. In addition, analog and digital telephones are supported. The Internet Telephone is provisioned at the Branch Office using Set-Based Installation, through Command Line Interface (CLI) overlays, or through Optivity Telephony Manager (OTM).

SSC Succession System Controller (NTDK20GA)

Succession CSE 1000 SSC is the NTDK20GA CPU and supports two 100 BaseT IP daughterboards, and will be supplied with all new CSE 1000 Release 2 systems. The NTDK20FA is the minimum card vintage required.

An SSC must be installed in a Media Gateway in slot 0. A minimum of a NTDK20FA SSC card must be used as with the Call Server, and there is no immediate benefit in using the NTDK20GA here. The SSC card in the Media Gateway can be either NTDK20FA or NTDK20GA, but the NTDK20GA provides benefits in the LAN connectivity. It must have a Software daughterboard, Remote Security Device and a single port IP daughterboard mounted on it.

Security Device NTDK57AA

A security device on the Call Server SSC card and a site-specific keycode scheme protects installation of software, feature set and ISM parameters. Each security device has a unique identification number (Security ID) and is not changeable on the device. As long as the security device stays with the system, the Security ID of the system remains the same. The Security ID is a key component of the system tracking database.

A Media Gateway security device (NTDK57DA) is installed in each Media Gateway, and is coded to correspond only to a specific Call Server security device, which maintains the requirement of a single keycode only per system. The Media Gateway security device differs from the standard device in the Call Server as the number printed on the Media Gateway security device starts with a 4 to denote that it is a different series. The Media Gateway security device also has "NT_REM" printed on it.

IP Daughterboards

There are two versions of the IP daughterboards. The Dual port IP Daughterboard NTDK83AA is used on the Call Server whereas the Single port IP Daughterboard (NTDK99AA) is used on the Media Gateway. Each port on the dual IP daughterboard will connect to one Media Gateway. Each dual IP daughterboard will therefore support two Media Gateways.

These are unchanged from Succession CSE 1000 Release 1.0.

NTDK83AA – Dual port 100BaseT IP daughterboard – Supports standard category 5 copper Ethernet cable. Mounted on the SSC card in the Call Server and provides connectivity to 2 Media Gateways. Media Gateways can be connected either "point to point" up to 100m from the Call Server (recommended where possible), or over a customer data network.

NTDK99AA – Single port 100BaseT daughterboard – Mounted on the SSC card in the Media Gateway. Single port version of the NTDK83AA 100BaseT IP Daughterboard.

Software Daughterboard (NTM400AC)

Pre-programmed Software daughterboard – Mounted on the SSC card in the Call Server and Media Gateway. It contains a master copy of the software, pre-configured data, firmware, feature sets, and patches. Specific software options must be ordered separately.

Software operation and storage is provided via Flash-based technology residing on a daughterboard mounted on the Succession System Controller.

The blank software daughterboard is an NTKK25AA and can be ordered separately.

Note: A different card, NTMP50AC, is used in the Branch office.

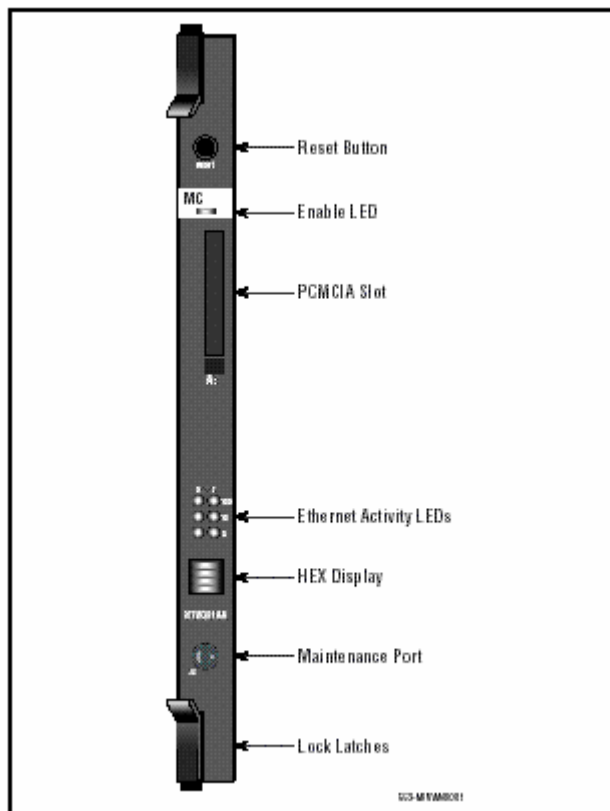
Succession Media Card

Succession Communication Server for Enterprise (CSE) 1000 Release 2 introduces the single slot-width NTVQ01xx Succession Media Card, which is available in either 8-port (NTVQ01AA) or 32-port (NTVQ01BA) versions. The 8-port version is typically intended for the Branch Office configuration, although it can also be used at the main office. The Succession Media Card replaces the ITG Pentium Card.

The primary purpose of the Succession Media Card is to provide the interface between the IP Telephones which are communicating by means of IP protocols on the LAN or WAN, and TDM devices (such as PSTN trunks or digital telephones) which are located in Media Gateways. The cards are equipped with Digital Signal Processors (DSPs) for this purpose. These Succession Media Cards are plugged into any slot in a Media Gateway, and up to four can be installed in each Media Gateway and in each Media Gateway Expansion. A Succession Media Card is a hardware element, in the same way as an ITG (Pentium) is; the function they perform is that of a Voice Gateway Media Cards, and are generally referred to as such in the system documentation.

The Terminal Proxy Server function which was a major component of the ITG cards is not normally active on Succession Media Cards. The function is now carried out in the Signaling Server. The card can also be used to provide failover TPS service in the event of Signaling Server failure, and in this case each card can register up to 128 users.

The Succession Media Card also provides echo cancellation and compression/decompression of voice streams.



Note: Release 2.0 applications are also supported on the ITG Pentium cards for existing Succession CSE 1000 systems.

Succession Media Cards have different types of firmware pre-installed, depending on the application being supported. Succession CSE 1000 introduces a Voice Gateway application which enables Digital Signal Processors (DSPs) for either line or trunk applications. When the Voice Gateway application is installed on the Succession Media Card, the card is called the Voice Gateway Media Card. Other examples of applications on a Succession Media Card include IP Line 3.0 and MIRAN.

Note that the NTVQ01xx is only available as a package NTDU40xx, which also includes the necessary software Right-to-Use fees. For Succession CSE 1000 release 2, the NTDU40xx is bundled along with the Compact Flash and software and is available as NTDU41xx.

An NTVQ01xx Succession Media Card is shown in the picture.

The NTVQ01xx Succession Media Card provides faceplate and backplane interfaces, which are used to connect external LANs. See the NTP Circuit Card Reference 553-3023-211 for more details.

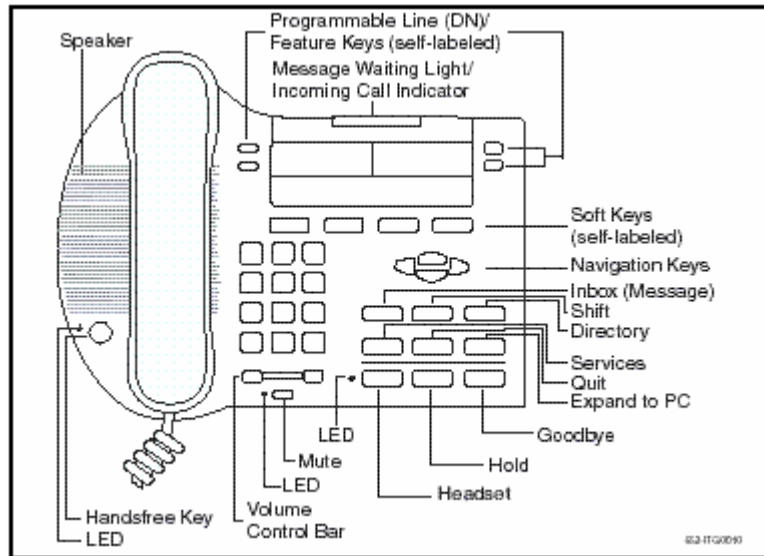
The following table provides a comparison of the ITG-P Line Card and Succession Media Cards. The table also shows a comparison of the 8-port and 32-port Succession Media Card.

Item	ITG-P Line Card (ITG Line 2.0, 2.1, ...)	Succession Media Card (32 port)	Succession Media Card (8 port)
Total DSP Channels	24	32	8
Number of slots the card occupies	2	1	1
Operating System	VxWorks 5.3	VxWorks 5.4	VxWorks 5.4
Processor	Pentium	IXP1200	IXP1200
DSP	8 x TI5409	4 x TI5421	1 x TI5421
Telogy version	7.01	8.1 High Density version (8 ports for each DSP)	8.1 High Density version (8 ports for each DSP)
Number of Internet Telephones that can be registered to each Voice Gateway Media Card	96	128	32
Image file name prefixes shown by swVersionShow command	IPL P	IPL SA	IPL SA
/C: drive	On board Flash 2 x 4Mb	Plug-in CompactFlash 16Mb	Plug-in CompactFlash 16Mb
Upgrade	Two images files	One image file (no backup)	One image file (no backup)

The i2002 Internet Telephone

The i2002 Internet Telephone is similar in appearance and functionality to the i2004 Internet Telephone; however, the i2002 has a smaller display and fewer feature keys.

i2002 Internet Telephone components



The following table shows a comparison of the i2002 and i2004 Internet Telephones.

Feature	i2004 Internet Telephone	i2002 Internet Telephone
Display		
Display size and format	8 line display	4 line display
Information Line	3 lines * 24 characters	1 line * 24 characters
Dedicated Data/Time field	Yes	No
Context Label field	Yes	No
Keys		
Soft Keys	4 soft keys, soft-labeling 7 characters long	4 soft keys, soft-labeling 6 characters long
Feature Keys	6 programmable feature keys, soft-labeling – 12 functions using SHIFT key 10 characters long	4 programmable feature keys, soft-labeling 10 characters long
Other features		
Feature set	Based on the M2616 with select M3900 features added	Based on the M2616 with select M3900 features added
DHCP support	Yes	Yes
Transducers	Headset (HS) / Handset (HD) / Handsfree (HF)	Headset (HS) / Handset (HD) / Handsfree (HF)
Voice Codec support	G.711, G.729A, G.729AB, G.723.1	G.711, G.729A, G.729AB, G.723.1

Firmware download	Automatic firmware version checking and download	Automatic firmware version checking and download
3-port unmanaged Layer 2 switch for data and voice	Depending on the model, the switch can be added on externally or built-in	Built-in

Please refer to the *Internet Terminals Description* NTP (553-3001-217) for more information on the i2002 Internet Telephone.

i2004 with Integrated Switch

The i2004 with the integrated 3-port Ethernet switch will be Generally Available in 4Q02. A separate Product Bulletin will be published to announce the launch of this next version of the i2004.

The main difference from the i2004 is the inclusion of a built in 10/100BASE-T Layer 2 switch to support a co-located PC through shared LAN cabling to the desktop. Other functionality & capabilities are identical between the two models of the i2004.

Physical Characteristics

Physical Dimensions

	Call Server	Media gateway MG Expansion	Signaling Server
Depth	13.5"; 34.3 cm	12.8"; 32.5cm	22", 55.9cm
Width	17.25"; 43.8 cm	17.2"; 43.7cm	16.75", 42.5cm
Height	3.75"; 9.5 cm, (3U)	8.4"; 21.3cm, (5U)	1.70", 4.3 cm, (1U)
Weight (empty)	18.9 lbs; 8.5 kg	30lbs; 13.6kg	20lbs; 9.1kg
Mounting	19" rack mounting	19" rack mounting	19" rack mounting

Power Supply Specifications

Call Server	Media Gateway Media Gateway Expansion	Signaling Server
Auto Voltage sensing 50/60Hz 85-260 VAC 0.3 A/0.2 A 40 Watts (137 BTU/hr)	Auto Voltage sensing 50/60Hz 90-129/180-250VAC 6.5A/3.5A 363 Watts max (785 BTU/hr typical)	Auto Voltage sensing 40/63Hz 90-135/180-265VAC 2A/1A 125 Watts (427 BTU/hr)

Environmental Specifications

Call Server, Media Gateway, Media Gateway Expansion

Environmental Specification	Parameter	Value	Reference
Temperature	Operating temperature range	32° to 113° F 0° to 45° C	
	Operating humidity range	0 to 95% relative humidity, non-condensing	
	Storage temperature	-58° to 158° F -50° to 70° C	
Vibration	Office	0.1G @ 5-100Hz with 0.1 octave/min 1.5G @ 100-500Hz with 0.25 octave/min	GR-63-Core
	Transportation	0.5G @ 5-100Hz 1.5G @ 100-500Hz	GR-63-Core
	Mechanical Shock	as per GR-63-Core	
	Packaged Bounce	as per IEC 68-2-55	

Signaling Server

Environmental Specification	Parameter	Value	Reference
Temperature	Operating temperature range	50° to 95° F +10° to 35° C	
	Non-operating humidity range	0 to 95% relative humidity, non-condensing	
	Storage temperature	-40° to 158° F -40° to 70° C	
Vibration	Operating Shock	2G @ 11mS, Min. 100 pulses	Mil Std 810E Method 516
	Packaged	0.015g ² /Hz @ 10-40Hz 0.015g ² /Hz to 0.00015g ² /Hz @ 40Hz-500Hz	Mil Std 810E Method 516
	Package Drop	36" Drop test	Mil Std 810E Method 516
	Unpackaged Shock	30G, 11 mS	Mil Std 810E Method 516

Regulatory Compliance

	Radiated Emissions	Safety
US	FCC Part 15, Class A	UL 1495 / UL 1950 (Telecom)
Canada	CSA C108.8 Class A	CSA C22.2 No. 225 –M90/CSA950 (Telecom)
Europe	EN55022, Class A, CISPR22	TUV – EN60950

Network Considerations

System Network Requirements

QoS Requirements

It is essential that the data networks used for all VoIP be properly engineered to ensure that a good and consistent voice quality is obtained. These engineering requirements are very different from those required to carry traditional data services only. Data networks were originally designed and deployed to provide best-effort services, but applications such as IP Telephony require the data network to provide specific Quality of Service (QoS) mechanisms and protocols to obtain reliable quality.

QoS refers to packet tagging mechanisms and network architecture decisions at the packet layer to expedite packet forwarding and delivery. It specifies unique requirements for bandwidth, delay, jitter and availability for each traffic type on any network (including voice). Networks carrying both telephony and data traffic usually require such QoS mechanisms to ensure that the telephony applications achieve acceptable service quality, and it must be applied uniformly across the network to ensure consistent, timely delivery of telephony packets.

If a voice application is sent over a best-effort IP network, voice packets can experience variable, unpredictable amounts of delay, can get dropped when the network is congested, and can be re-ordered by the network resulting in the packets arriving out of sequence. These degradations will result in unsatisfactory performance.

Network Assessment

Any network which is planned to have voice applications introduced should undergo a formal Network Assessment, to determine whether it can support VoIP satisfactorily and what improvements and configuration changes are required.

Any network which is giving unsatisfactory performance should also be re-assessed. An initially satisfactory network can degrade over time as traffic increases, and upgrades may be needed to restore acceptable service levels.

Further Information

A comprehensive discussion on designing data networks for use with voice applications is given in the Succession CSE 1000 Document *Data Networking Guidelines* (553-3023-103). This document should be followed carefully when planning Succession CSE 1000 installations. It also discusses Network Assessments.

Interworking

Interworking with Meridian 1

Succession CSE 1000 Release 2 will network with releases of Meridian 1 X11 software up to Release 25. Nortel's Meridian Customer Defined Networking (MCDN) protocols over PRI trunks will give the rich feature set currently available to networks of Meridian 1 systems.

IP Trunk Release 3.0

For interworking between a Succession CSE 1000 and Meridian 1 system, the ITG-P (ITG Trunk 2.0, 2.1) and 32-port Succession Media Cards on the Meridian 1 system must be upgraded to IP Trunk 3.0 software. This upgrade supports MCDN features over IP and Gatekeeper registration, but does not support direct media paths between IP telephones on Meridian 1 and IP telephones on Succession CSE 1000. The direct media paths are between the Succession CSE 1000 terminals and the IP Trunk card on the Meridian 1 system, and normal internal Meridian 1 connections are made to IP or analog/digital terminals.

IP Trunk 3.0 will be available in early 2003, and will be announced in a separate Bulletin.

X11 Release 26

The next major release of X11 software will incorporate Peer Networking into the Meridian 1 product line, and will allow full direct media paths between IP telephones on Succession CSE 1000 and IP telephones on Meridian 1 IP. This convergence has always been the Succession strategy.

The timing and content of R26 will be communicated later by the R26 program.

Interworking with BCM

BCM Release 2 will network with Succession CSE 1000 Release 2 using PRI trunks and MCDN features. BCM Release 2.5 has been enhanced with many additional MCDN features, including

- Network Call Transfer
- Network Call Redirection Information
- Message Waiting Indication (MWI)
- ISDN Call Connection Limitation (ICCL)
- Trunk Route Optimization (TRO)
- Trunk Anti-Tromboning (TAT)
- Camp-on
- Break-in.

BCM Release 3.0 provides support for Peer Networking and the Gatekeeper, and so will allow direct media path connections between IP telephones on BCM and IP telephones on Succession CSE 1000. It is expected to become available in late 2002, and is the minimum release to ensure IP interoperability with Succession CSE 1000.

Applications supported on Succession CSE 1000 Release 2

System Management

The Optivity Manager (OTM) Release 2.0 is the System Management tool supported with the Succession CSE 1000. OTM 2.0 supports Succession CSE 1000 Release 2.0 and associated features. Meridian Administration Tools (MAT) is NOT supported. OTM is an integrated suite of system management tools, which can be used to configure, control, and manage Succession CSE 1000 systems. OTM operates on a platform that is compatible with a standard IBM PC. Refer to the *OTM User Guides* for information about the OTM application, its requirements, and how to install it for the Succession CSE 1000 system.

CallPilot

Version 1.07 with Service Update 4 is also supported, and can be used with Succession CSE 1000 Release 2. CallPilot Mini version 1.5 can also be used in either Main Office or Branch.

CallPilot version 2 will be available concurrently with Succession CSE 1000 Release 2, and is recommended for all new installations. It brings many new features such as:

- Mobile User enhancements
- Unified Messaging & Desktop Messaging enhancements
- Message playback slowdown: Provides this control from remote (telephone) device
- Message playback volume control: Provide this control from remote (telephone) device
- Improved user mailbox management with "My CallPilot"
- New features and capabilities which improve support for migration from legacy voice mail systems
- Server Capacity improvements
- Networking enhancements
- Security enhancements
- System Management improvements
- Maintenance improvements

IP Contact Center

Succession CSE 1000 Release 2.0 supports all existing Contact Center application products as detailed in the Application and Auxiliary Processor Compatibility Matrix (below), and can be used as the platform to implement an IP Contact Center solution. A separate Product Bulletin is being developed to describe in detail the enhancements that Succession CSE 1000 Release 2.0 brings to IP Contact Center. These include:

Branch Office

The Succession Branch Office will enable greater distribution of Agents in an IP Contact Center while the associated Contact Center applications and administration remain centralized at the main site. This provides a very cost effective mechanism to distribute groups of agents, while providing remote agents with functionality as if they were located at the main site. Also, in the event of a WAN failure, incoming calls to the Branch Office can still be routed to agents locally using ACD, providing a very effective fallback solution.

Peer Networking

The introduction of peer networking with Succession CSE 1000 Release 2.0 enables the use of IP trunking for distribution of calls between nodes in a Networked Contact Center solution. Previously, these calls could only be distributed via traditional TDM interfaces (e.g. PRI).

i2002

In addition to the i2004 and i2050, the i2002 provides a further alternative IP telephone set for use by agents in an IP Contact Center.

SWCP

The use of Symposium Web Center Portal 3.0 within an IP Contact Center is supported on Succession CSE 1000 Release 2.0, enabling the implementation of a Multimedia Contact Center blending together voice calls with email/web forms to the agent desktop.

Call Pilot Integration with SCCS 4.2

Symposium Call Center Server 4.2, which is the minimum release for Succession CSE 1000 Release 2.0, is currently trialling a service update for integration with Call Pilot. This integration will provide a cost-effective voice services solution for IP Contact Center. In addition to announcements and voice menus, this will enable features such as play prompt and collect digits. In essence, all the features provided by Meridian Mail to SCCS users on Meridian 1 platform will be available via Call Pilot on Succession CSE 1000 Release 2.0.

Applications Compatibility

The following Applications and Releases are supported with Succession CSE 1000 Release 2.

Auxiliary Processor	Compatibility (Release)
Attendant Console	
PC Attendant Console	1.2.X (1.2.411 is latest)
M2250 Attendant Console	Supported
System Management	
Meridian Administration Tools (MAT)	Not supported
Optivity Telephony Manager (OTM)	OTM 2.0
Messaging	
CallPilot	1.07 (with Service Update 4), 201i, 702t, 1001rp versions 2.0
CallPilot Mini	1.5
Meridian Mail	Not supported directly (can network back to MMail on an M1 via NMS)
Meridian Mail Card Option	Not supported
Meridian Mail reporter	Not supported

Auxiliary Processor	Compatibility (Release)
Voice over Internet Protocol	
Meridian/Succession Companion DECT (DMC8 version)	470001xx - Current version – SW embedded on IPE card
Companion	Not supported
VoIP – 802.11 Wireless IP Gateway	1.19 - Application supported on ITG Pentium only
Internet Telephone – i2002 (2 line display)	Minimum FW version – 1.39
Internet Telephone – i2050 (Software Telephone)	Minimum SW version – Build 299
Internet Telephone – i2004 (Software Telephone)	Minimum FW version – 1.39
Remote Office Portfolio	
Remote Office 9150	1.3.1. or 1.3.4
	1.2.1 or later – for upgraded CSE 1.0 systems.
Remote Office 911x/9150/ IP Adaptor	1.3.4
Vintage Call Center Applications	
Meridian MAX [IPEX]	Not supported
Meridian MAX [IPE]	Not supported
Network Administration Center [NAC]	Not supported
Meridian Customer Controlled Routing [MCCR] (Discontinued as of July 2000, SCCS offer the functionality of MCRR)	Not supported
Meridian Link [Mlink]	Not supported. Replaced by Meridian Link Services – MLS 4.0
Meridian Link & MCCR Co-residency	Not supported
Symposium Call Center and CTI Applications	
Symposium Link	6.01 not supported – replaced by MLS
Symposium Messenger	Not supported
Symposium Call Manager	Not supported
Symposium Communicator	Not supported
Symposium Messenger	Not supported
Symposium Multimedia Conference	Not supported
Symposium Desktop TAPI Service Provider for MCA (Meridian Communicator Adapter)	Not supported
Symposium Fast Call / Fast View (Windows Only)	Not supported

Auxiliary Processor	Compatibility (Release)
Meridian Link Services [MLS] (i.e., SCCS 4.x sold with 1 Agent)	- see SCCS
Symposium TAPI Service Provider for M1/SCSE 1000	2.3.1
Symposium Agent	2.3
Symposium Agent Greeting	2.0
Symposium Express Call Center [SECC]	3.0
Symposium Call Center Server [SCCS]	4.2 - SCCS 4.2 Service Update 07 (available Dec 02) to utilize Call Pilot 2.0 Voice Services (Collect digits, play prompts)
Symposium Web Centre Portal [SWCP]	3.0
Symposium Web Client	4.0
IVR Applications	
Symposium Integrated Interactive Voice Response	Not supported
Symposium Open Interactive Voice Response	Not supported
Periphonics Open IVR (VPS/is)	5.4.2
Periphonics Integrated Package for Meridian Link (IPML) – VPS/is based	2.0.4
Periphonics Multimedia Processing Server (MPS) 100, including IPML 2.0	1.0
Periphonics Multimedia Processing Server (MPS) 500	Not supported
Periphonics Multimedia Processing Server (MPS) 1000	Not supported
Business Communication Manager	
Business Communications Manager	2.5 + Feature pack 1 – Supports interoperability between M1, CSE via MCDN over PSTN trunks. 3.0 – planned to be available in late 2002. Minimum BCM release for IP interoperability with Succession CSE 1000 R2 (i.e., first BCM release that supports Virtual Trunk and Gatekeeper).
MIXX Portfolio	
Meridian/Succession Integrated Call Assistant (MICA)	1.06 – current field release.
Meridian/Succession Integrated Conference Bridge (MICB)	Version II – 2.10 – current field release. Version III – 3.01 – Next generation Conference Bridge
Meridian/Succession Integrated Recorded Announcement (MIRAN)	Version II - 2.0.17c Version III - 3.0.x

Auxiliary Processor	Compatibility (Release)
Meridian/Succession Integrated Personal Call Director (MICPD)	1.0.4 1.5
Meridian/Succession Integrated Voice Services (MIVS)	1.17 – current field release
Branch Office Supported Applications	
Meridian/Succession Integrated Conference Bridge (MICB)	Version III – 3.01
CallPilot	CallPilot Mini Issue 1.5 CallPilot 201i Issue 2.00

Documentation

CSE System Documentation

Documentation continues to be a common suite for Succession CSE 1000 and Meridian 1. Some documents are specific to Meridian 1 only and are not included in the Succession CSE 1000 suites.

The following new NTP documents have been created for Succession CSE 1000 Release 2

Title	NTP #	Issue
Library Navigator	553-3023-001	1.00
System Overview	553-3023-101	1.00
Data Networking Guidelines	553-3023-103	1.00
IP Peer Networking	553-3023-220	1.00
Branch Office	553-3023-221	1.00
Element Management	553-3023-222	1.00
Upgrades	553-3023-258	1.00
System Management Description	553-3023-300	1.00

The following NTP documents have been updated for Succession CSE 1000 Release 2

Title	NTP #	Issue
What's New for Succession Communication Server for Enterprise 1000	553-3023-015	2.00
Electronic Switched Network Signaling Guidelines	309-3001-180	5.00
Electronic Switched Network Transmission Guidelines	309-3001-181	5.00
Basic and Network Alternate Route Selection General: Description	553-2751-100	11.00
Network Queuing: Description	553-2751-101	5.00
Coordinated Dialing Plan: Description	553-2751-102	6.00
Basic and Network Authorization Code: Description	553-2751-103	8.00
Flexible Numbering Plan: Description, Operation and Administration	553-2751-105	7.00
IP Line: Description, Installation and Operation	553-3001-204	4.00

Internet Terminals Description	553-3001-217	2.00
Installing and Configuring Optivity Telephony Manager	553-3001-230	3.00
Features and Services	553-3001-306	11.00
Software Input/Output: Administration	553-3001-311	10.00
Using Optivity Telephony Manager	553-3001-330	3.00
Using Optivity Telephony Manager Telemanagement Applications	553-3001-331	3.00
Software Input/Output: System Messages	553-3001-411	11.00
Software Input/Output: Maintenance	553-3001-511	10.00
1.5 Mb DTI/PRI: Description, Installation and Maintenance	553-3011-310	14.00
ISDN BRI: Hardware, Installation and Maintenance	553-3011-311	10.00
2.0 Mb DTI/PRI: Description, Installation and Maintenance	553-3011-315	14.00
Planning and Engineering Guidelines	553-3023-102	1.00
Installation and Configuration	553-3023-210	2.00
Circuit Card Reference	553-3023-211	2.00
Maintenance	553-3023-510	2.00

Other NTPs are unchanged.

Documentation Order Codes

There are four different packages available.

NTLH 80AG A0994602 Succession Communication Server for Enterprise 1000 Release 2.0 CD-ROM (includes Succession CSE 1000 core documents and all supporting documents)

This CD-ROM contains all documents that are applicable to Succession CSE 1000, including CallPilot and Symposium.

NTLH 80DA - A0994605 Succession Communication Server for Enterprise 1000 Release 2.0 New Install Documentation Kit. Comprises the CD-ROM and selected paper documents.

SERL Release 2.0 Electronic Library (CD-ROM)	NTLH80AG
What's New for Succession Communication Server for Enterprise 1000	553-3023-015
Installation and Configuration	553-3023-210

Branch Office	553-3023-221
System Overview	553-3023-101

NTLH80CB - A0889788 Succession Communication Server for Enterprise 1000 Release 2.0 Upgrades Documentation Kit. Comprises the CD-ROM and selected paper documents.

SERL Release 2.0 Electronic Library (CD-ROM)	NTLH80AG
What's New for Succession Communication Server for Enterprise 1000	553-3023-015
Upgrades	553-3023-258
Input Output Guide Administration	553-3001-311
Input Output Guide Maintenance	553-3001-511

NTLH80BC - A0994603 Succession Communication Server for Enterprise 1000 Release 2.0 Paper Format

Library Navigator	553-3023-001
Upgrades	553-03001-258
Data Networking Guidelines	553-3023-103
IP Peer Networking	553-3023-220
System Management	553-3023-300
Planning and Engineering Guidelines	553-3023-102
System Overview	553-3023-101
What's New for Succession Communication Server for Enterprise 1000	553-3023-015
Installation and Configuration	553-3023-210
Branch Office	553-3023-221
Maintenance	553-3023-510
Circuit Card Reference	553-3023-211
Input Output Administration	553-3001-311
Input Output Maintenance	553-3001-511

IP Line Documentation

NTDW81AD A0894596 This is a CD-ROM which includes:

IP Line Description, Administration and Operation	553-3001-204
Internet Terminals Description	553-3001-217
i2002/i2004 Quick Reference Cards	

i2002 User Documentation	
i2004 User Documentation	
i2050 User Documentation	

Documentation On-Line

All Succession NTPs can also be accessed on the Nortel Networks web site.

The following link will take you directly to the Succession CSE 1000 Release 2 specific NTPs

http://app49.nortelnetworks.com/cgi-bin/HelmExpress/srchlite?PF=m&Collection=CSE10002_0

In addition, this site will be posting regular "Release Notes", which will detail changes to existing NTPs made as a result of customer input and internal testing. These will accumulate until the following full up-issue of the relevant documents.

The following link will take you to the page showing all Meridian 1, Succession CSE 1000, and other NTPs.

<http://app49.nortelnetworks.com/cgi-bin/HelmExpress/coll?PF=m&sl=@17.0/#expanded>

Registration is required for access, but there are no charges. Please go to the following location to register:

<http://www.nortelnetworks.com/register>

New Marketing Packages and Hardware Codes

Marketing Packages

Order codes and pricing are published in the Succession CSE 1000 Product Catalog. The effective date is 28th October 2002. The Succession CSE 1000 Product Catalog covers both new systems and expansions of existing systems.

The following Succession CSE 1000 Release 2 hardware packages are available:

NTDU21AD A0888719 Succession CSE 1000 - 0 Line 0 Trunk - Release 2.0

Quantity	Order Code	Package Contents
1	NTDU06CA	Succession Call Server, including:
1		<i>CSE 1000-R2.0 Configured Call Server</i>
1		<i>Succession Controller Card</i>
1		<i>RJ45 M-to-M Ethernet Cable Assembly</i>
1		<i>Dual Port 100BaseT IP Daughterboard</i>
1		<i>Succession Call Server Chassis Cable Kit</i>
1		<i>Succession CSE 1000 Rls. 2.0 New Install Documentation Kit</i>
1	NTM400AC	Succession Programmed SW Daughterboard Release 2.0
1	NTDK57AA	NT-STD Security Device
1	NTDU27BA	Signaling Server Assembly
1	NTDU80AA	Succession Signaling Server Software CD ROM Kit, including:
1		<i>Succession Signaling Server Release Notes</i>
1		<i>Succession Signaling Server Software CD-ROM</i>

Notes

- This specially priced base system package should always be the first package provisioned for every Succession CSE 1000 Release 2.0 system.
- This package contains key system components such as a Call Server and one Signaling Server. If an additional Signaling Server is desired, purchase Succession Signaling Server (NTDU27CB) package.
- A minimum of 16 Internet Telephone ISMs (2 x 8 of Basic, Advanced or Premium) must be purchased along with the NTDU21AD package.
- This package does not contain a Succession Media Gateway or a Succession Media Card. At least one Succession Media Gateway package (NTDU22AD) and one Succession Media Card package will be required in order to build a typical system.
- This package requires the user to select power cords, which must be ordered separately. For North America, the power cords are:

NTTK14AA	Call Server Power Cord
A0292928	Signaling Server Power Cord

NTDU22AD A0888720 Succession Media Gateway - Release 2.0

Quantity	Order Code	Package Contents
1	NTDU14CA	Succession Media Gateway Chassis, including
1		<i>AC Power supply</i>
1		<i>CSE 1000-R2 Dual LED Cable Assy</i>
1	NTDU25BA	Succession Media Gateway Chassis Cable Kit, including
1		<i>SDI Comm Kit - 3 port serial cable</i>
1		<i>Aux connector</i>
1		<i>PC Maintenance Cable</i>
1	NTTK09AA	19" Chassis Rack Mount Kit
1	NTDK20GA	Succession Controller Card
1	NTDK99AA	Single100BaseT IP Daughterboard Kit
1	NTTK34AA	100BaseT Crossover Cable (2m)
1	NTM400AC	Succession Release 2.0 Programmed Software Daughterboard
1	NTDK57DA	Remote Security Device

Notes

- Succession Media Gateways contain 4 slots for provisioning Succession Media Cards, analog and digital trunks, analog and digital lines as well as Succession CSE 1000 supported applications.
- One Clock Controller (NTDK23AB) is required for every Succession Media Gateway containing a digital trunk card (TMDI).
- This package requires the user to select a power cord, which must be ordered separately. For North America, the power cord is:

NTTK14AA	North American Power Cord
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NTDU23AC A0888721 Succession Media Gateway Expansion

Quantity	Order Code	Package Contents
1	NTDU15CA	Succession Media Gateway Expansion Chassis, including
1		<i>AC power supply</i>
1		<i>CSE 1000-R2 Dual LED Cable Assy</i>
1	NTDK89AA	Succession Media Gateway Expansion Chassis Cable Kit
1	NTTK09AA	19" Chassis Rack Mount Kit

Notes

- Succession Media Gateway Expansions contain 4 slots for provisioning Succession Media Cards, analog trunks, analog and digital lines as well as Succession CSE 1000 supported applications.

- Succession Media Gateway Expansions do not support digital trunks (TMDI).
- This package requires the user to select a power cord, which must be ordered separately. For North America, the power cord is:

NTTK14AA	North American Power Cord
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NTDU19AA A0858761 Call Server Gateway Expansion Kit

Quantity	Order Code	Package Contents
1	NTDK83AA	Dual 100BaseT IP Daughterboard
2	NTDU0606	RJ45 M-to-M Ethernet Cable Assembly

Notes

- One Call Server Gateway Expansion Kit is required if a third (or third and fourth) Succession Media Gateway are to be provisioned. The Succession CSE 1000 - 0 Line 0 Trunk - Release 2 (NTDU21AD) package comes equipped with one Dual 100 Base T IP Daughterboard (NTDK83AA) which will support the first two Succession Media Gateway cabinets.
- Mounting hardware is included in this package.

NTDU27CB A0888723 Succession Signaling Server - Release 2.0

Quantity	Order Code	Package Contents
1	NTDU27BA	Succession Signaling Server Assembly
1	NTDU80AA	Succession Signaling Server Software CD ROM Kit

Notes

- This Succession Signaling Server package should be ordered when provisioning redundant or additional Signaling Servers since one Signaling Server is included in the Succession CSE 1000 - 0 Line 0 Trunk - Release 2.0 base system package.
- This package requires the user to select a power cord, which must be ordered separately. For North America, the power cord is:

A0292928	Signaling Server Power Cord
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NTDU41BB A0888746 Succession Media Card 32 Port – IP Line 3.0 / Voice Gateway

Quantity	Order Code	Package Contents
1	NTDU40BA	Succession Media Card 32 Port (includes card NTVQ01BA and software licenses)
1	NTM403AA	Succession IP Line 3.0 / Voice Gateway Compact Flash
1	NTVQ83AA	ITG EMC Shielding Kit
1	A0852632	ELAN, TLAN, RS232 L Adapter
1	NTDW81AD	Succession IP Line 3.0 / Voice Gateway NTP CD ROM
1	P0990172	Read-me First document

Notes

- Succession Media Cards provide DSP ports for transcoding media streams from IP to TDM and vice versa. Most Succession CSE 1000 systems will require at least one 8 or 32 port Succession Media Card. Consult the *Planning and Engineering Guidelines* NTP (553-3023-102) for engineering recommendations.

NTDU41AB A0888731 Succession Media Card 8 Port – IP Line 3.0 / Voice Gateway

Quantity	Order Code	Package Contents
1	NTDU40AA	Succession Media Card 32 Port (includes card NTVQ01BA and software licenses)
1	NTM403AA	Succession IP Line 3.0 / Voice Gateway Compact Flash
1	NTVQ83AA	ITG EMC Shielding Kit
1	A0852632	ELAN, TLAN, RS232 L Adapter
1	NTDW81AD	Succession IP Line 3.0 / Voice Gateway NTP CD ROM
1	P0990172	Read-me First document

Notes

- Succession Media Cards provide DSP ports for transcoding media streams from IP to TDM and vice versa. Most Succession CSE 1000 systems will require at least one 8 or 32 port Succession Media Card. Consult the *Planning and Engineering Guidelines* NTP (553-3023-102) for engineering recommendations.

NTDU22DB A0888766 Succession Branch Office - Release 2.0

Quantity	Order Code	Package Contents
1	NTDU14CA	Succession Media Gateway Chassis, including
1		<i>AC power supply</i>
1		<i>CSE 1000-R2 Dual LED Cable Assy</i>
1		<i>RJ45 M-to-M Ethernet Cable Assy</i>
1	NTDU25BA	Succession Media Gateway Chassis Cable Kit, including
1		<i>SDI Comm Kit - 3 port serial cable</i>
1		<i>Aux conn</i>
1		<i>PC Maintenance Cable</i>
1	NTTK09AA	19" Chassis Rack Mount Kit
1	NTDK20GA	Succession Controller Card
1	NTLH80DA	Succession CSE 1000 Release 2.0 New Install Documentation Kit
1	NTMP50AC	Succession Branch Office RIs 2.0 Programmed SW Daughterboard
1	NTDK57AA	NT-STD Security Device
1	NTDU27BA	Signaling Server Assembly
1	NTDU80AA	Succession Signaling Server Software CD ROM Kit

Notes

- At least one Succession Media Card (8 or 32 ports) will be required for a complete Succession Branch Office in most configurations. Consult the *Branch Office Guide* NTP (553-3023-103) for engineering recommendations.
- This package requires the user to select power cords, which must be ordered separately. For North America, the power cords are:

NTTK14AA	Call Server Power Cord
A0292928	Signaling Server Power Cord

Upgrade from Succession CSE 1000 Release 1

Customers who have purchased Succession CSE 1000 Release 1.1 systems are eligible for the Enterprise Essentials Upgrade Express Customer Loyalty Program provided that their Authorized Nortel Networks Business Partner has adopted the Upgrade Express Customer Loyalty Program and registered the respective end-customer to qualify for the Program offer.

Customers who have purchased Succession CSE 1000 Release 1.0 and 1.1 that wish to expand their systems (example: adding IP, analog or Digital ISM Enablers) will be required to upgrade their system to Release 2.0. Software expansions for Release 1.0 and 1.1 systems will no longer be available.

Offer

Qualified customers registered in the Program will receive free upgrades on each eligible Succession CSE 1000 Release 1 switch:

- Free base software upgrade from CSE 1000 Release 1.1 to CSE 1000 Release 2.0
- Free of charge Signaling Server upon availability

Requirements

To qualify for the Upgrade Express Customer Loyalty Program, the end-user customer must meet the following requirements:

- End-user customers must have purchased or upgraded to CSE 1000 Release 1.1
- End-user customer must have an existing signed 2-5 year maintenance agreement with their Nortel Networks Business Partner. If the end-user customer changes Business Partners during the course of this agreement, the new Business Partner (who also must adopt the Upgrade Express Program) is required to re-register the end-customer. This will enable modification of customer information and allow for the proper distribution of upgrades.

A full description of the program is available on the Partner Information Center web site under North American Promotions. The Program is currently scheduled to run until 6th April 2004, but is subject to change.

Ordering requirements

To effect an upgrade from Succession CSE 1000 Release 1.x to Release 2.0, the following will need to be ordered:

- 1 or 2 (depending upon redundancy requirements) NTDU27CB Succession Signaling Server
- 1 NTM401AC Succession Upgrade - Release 1.x to Release 2.0

NTM401AC A0874759 Succession Upgrade - Release 1.x to Release 2.0

Quantity	Order Code	Package Contents
1	NTLH80CB	Succession Communication Server for Enterprise 1000 Release 2.0 Documentation Upgrades Kit
1	P0989745	General Release Bulletin for Succession Release 2.0
1	P0989746	Installer's Checklist for Succession Release 2.0

Notes

- As part of this package, it will also be necessary to order the regional software Upgrade Code:
Release 2.0 Software Upgrade Code – North America **NTM402AA A0887821**

Merchandise Codes

The Succession CSE 1000 Product Catalog is the definitive listing of all available merchandise codes, and these will change from time to time. The following is a reference.

Signaling Server		
Succession Signaling Server Assembly	NTDU27BA	A0887812
Succession Signaling Server Software CD ROM Kit	NTDU80AA	A0887817
Succession Media Cards		
Succession Media Card 32 Port	NTDU40BA	A0888759
Succession Media Card 8 Port	NTDU40AA	A0888756
Compact Flash Card (16MB)		A0859610
ELAN, TLAN, RS232 L Adapter		A0852632
ITG EMC Shielding Kit	NTVQ83AA	A0870556
PC Maintenance Cable	NTAG81CA	A0655007
Call Server		
Succession Call Server Shelf Assembly	NTDU30BA	A0888722
Succession Call Server Chassis Cable Kit	NTDU20AA	A0858762
Dual Port 100BaseT IP Daughterboard	NTDK83AA	A0745218
Succession Controller Card	NTDK20GA	A0879083
Succession Programmed Software Daughterboard Release 2.0	NTM400AC	A0887878
Succession Software Delivery Card Release 2.0	NTM400BC	A0887879
RJ45 M-to-M Ethernet Cable Assembly	NTDU0606	A0856664
Option 11C 48MB Software Daughterboard (Blank)	NTTK25AA	A0842230
Media Gateway/Media Gateway Expansion		
Succession Media Gateway Chassis	NTDU14CA	A0884572
Succession Media Gateway Chassis Cable Kit	NTDU25BA	A0884596

Single100BaseT IP Daughterboard Kit	NTDK99AA	A0777325
PC Maintenance Cable	NTAG81CA	A0655007
19" Chassis Rack Mount Kit	NTTK09AA	A0780625
100BaseT Extension Cable (2m)	NTDK8305	A0781621
100BaseT Crossover Cable (2m)	NTTK34AA	A0793725
Succession Media Gateway Expansion Chassis	NTDU15CA	A0884591
Succession Media Gateway Expansion Chassis Cable Kit	NTDK89AA	A0774112
Succession Branch Office		
<i>As per Media Gateway, plus</i>		
Succession Branch Office Programmed Software Daughterboard Release 2.0	NTMP50AC	A0888810
Succession Branch Office Software Delivery Card Release 2.0	NTMP50BC	A0888812
Documentation		
Succession Communication Server for Enterprise 1000 Release 2.0 Paper Format	NTLH80BC	A0994603
Succession Communication Server for Enterprise 1000 Release 2.0 Electronic Library	NTLH80AG	A0994602
Succession Communication Server for Enterprise 1000 Release 2.0 New Install Documentation Kit	NTLH80DA	A0994605
Succession Communication Server for Enterprise 1000 Release 2.0 Upgrades Documentation Kit	NTHL80CB	A0889788
Succession IP Line 3.0 / Voice Gateway NTP CD ROM	NTDW81AD	A0894596
Power Cords		
For the Signaling Server		A0292928
For the Call Server, Media Gateway, Expansion and Branch Office	NTTK14AA	A0781921

Internet Telephones

A separate Product Bulletin will be issued describing these products in more detail, and providing full information on all of the order codes. This is a summary of the main items.

i2002 Internet Telephone components

i2002 Internet Telephone, with North American power supply package, includes: <ul style="list-style-type: none"> Telephone handset, i2002 Telephone footstand, Telephone handset cord, 7ft Ethernet cable, Power transformer (117/120 VAC 50/60 Hz), i2002 Getting started cards (English & French) 	NTDU76AA – Ethergray NTDU76AA-70 - Charcoal
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i2002 Internet Telephone, without power supply package, includes:	NTDU76BA – Ethergray NTDU76BA-70 - Charcoal
<ul style="list-style-type: none"> Telephone handset, i2002 Telephone footstand, Telephone handset cord, 7ft Ethernet cable, i2002 Getting started cards (English & French) 	
Telephone handset cord (Ethergray)	A0987725
Telephone handset cord (Charcoal)	A0792037
Telephone handset (Ethergray)	A0788874
Telephone handset (Charcoal)	A0758634
i2002 Telephone footstand	A0891619
7ft. Ethernet cable category 5	A0648375
Power transformer (117/120 VAC 50/60 Hz) (North America)	A0619627

i2004 Internet Telephone with Integrated Switch component list

This telephone set will be available in late 2002.

i2004 Internet Telephone with Integrated Switch, with North American power supply package, includes:	NTDU82AA – Ethergray NTDU82AA-70 - Charcoal
<ul style="list-style-type: none"> Telephone handset, i2004 Telephone footstand, Telephone handset cord, 7ft Ethernet cable, Power transformer (117/120 VAC 50/60 Hz), i2002 Getting started cards (English & French) 	
i2004 Internet Telephone with Integrated Switch, without power supply package, includes:	NTDU82BA – Ethergray NTDU82BA-70 - Charcoal
<ul style="list-style-type: none"> Telephone handset, i2004 Telephone footstand, Telephone handset cord, 7ft Ethernet cable, i2002 Getting started cards (English & French) 	
Telephone handset cord (Ethergray)	A0788682
Telephone handset cord (Charcoal)	A0720560
Telephone handset (Ethergray)	A0788874
Telephone handset (Charcoal)	A0758634
i2004 Telephone footstand	A0892623
7ft. Ethernet cable category 5	A0648375
Power transformer (117/120 VAC 50/60 Hz) (North America)	A0619627

i2050 Software Telephone

The i2050 Software Telephone PC application is delivered to each end-user on an individual CD, and is easy to install by end-users. Once enabled through a software parameter or port license like the i2004, the i2050 provides access to the same features and functionalities available on the i2004. Use of the USB Audio Kit with the i2050 Software Telephone is required to ensure good quality audio performance and to receive support on this product.

i2050 Software Telephone - Client application	NTDW83AA / A0873917
USB Audio Kit	NTEX14AA / B0258398

The USB Audio Kit requires an existing USB port on the computer, and consists of:

- USB Audio Adapter
- Enterprise Telephony grade monaural headset
- Lower cordset with quick disconnect
- USB cable
- User guide
- Travel bag

Minimum PC & System Requirements to support i2050 Software Telephone:

- Pentium Pro 200 multimedia PC (or equivalent)
- Windows 98, Windows 98SE, Windows 2000 or Windows XP
- 64 Mbytes RAM (Win98) or 128 Mbytes RAM (Win2000)
- 55 MB Free hard-drive space
- USB port

i2050 and Succession CSE 1000 Release 1.1 Upgrade to Release 2.0

If you plan on upgrading your Succession CSE 1000 Release 1.x to Succession CSE 1000 Release 2.0 AND you currently have the i2050 software telephone deployed, you will need to upgrade the i2050 software telephone to version 299. A Free Upgrade Program has been put in place to facilitate the upgrade procedure. Simply follow the steps outlined below.

- An MPR code has been created for this Upgrade Program: MPR04094
- You must quote the MPR Code on the same Purchase Order as the Succession CSE 1000 Release 1.x to Release 2.0 Upgrade Package.
- Quoting the MPR Code on a Purchase Order without the CSE 1000 Release 1.1 to Release 2.0 Upgrade Package will result in the order being declined.
- The requested quantities of i2050's must be identical to the numbers of i2050's currently deployed in your system.
- By applying for this process, you agree to destroy the current version of the i2050 Software Telephone and replace it with the i2050 Software Telephone version 299 that will be provided.

Note that the CD-ROM which delivers Build 299 will be identified as Issue 1.2.

i2050 Upgrade Program for North America, CALA order process

The single Purchase Order must contain:

Item 1:	1 - NTM401AC	Succession CSE 1000 upgrade package Release 1.x to Release 2.0	Standard Pricing	
Item 2:	Qty x - NTDW83AA	i2050 Soft Phone Client Package	No Charge	The requested quantities (qty x) of i2050's must be identical to the numbers of i2050's currently deployed in your system.
Item 3:	1 - MPR04094	i2050 Special upgrade Program	No Charge	
Items 4 to xxx:	Remaining codes to complete the upgrade		Standard Pricing	

Software

Succession CSE 1000 software is generic X21 release 2.02.

Software Service Levels

The Succession CSE 1000 Software Structure is based on our Global Software Structure. The Naming Convention used for the Service Levels is as follows:

- Basic Software Services
- Advanced Software Services
- Premium Software Services

All the Software Service Levels will be on the same Global software daughterboard. There are 3 service levels for Asia-Pacific, CALA, EMEA and North America (12 in total). All Service Levels have the same value definition globally.

Branch Offices will all use the Premium Services package.

Basic Software Services

- POTS Level Service, Voice Services Connectivity, Analog and Digital Trunking to Central Office
- Multi-Customer, Multi-Tenant, OTM Data Buffering, Messaging (CallPilot)

Advanced Software Services

- All features in Basic Software Services
- ACD Call Centre supporting Reporting
- Connectivity to Symposium Call Centre Server and TAPI Server
- Private Enterprise Network and Call-Tandeming for Dedicated Private Networks
- Network Message Service (NMS) feature for CallPilot

Premium Software Services

- All Features in Basic Software Services & Advanced Software Services
- Virtual Private Networks (VPN)
- Network Call Centres

See the Appendices for a full listing of which features are included in which Feature Package.

New Software Codes

Main System Software order codes

ENG. CODE	CPC	SCSE 1000 PRODUCT DESCRIPTION
<u>New System Software Packages</u>		
NTM400MC	A0887891	Succession N.A. Basic Services Software Release 2.0
NTM400NC	A0887892	Succession N.A. Advanced Services Software Release 2.0
NTM400PC	A0887895	Succession N.A. Premium Services Software Release 2.0
<u>CSE 1.1 to CSE 2.0 Upgrades</u>		
NTM401AC		Succession Upgrade Kit – release 1.x to 2.0
<u>Increase in Software Level 16 Extensions</u>		
NTM456AB	A0874749	Basic Software Service to Advanced Software Service ISM
NTM462AB	A0874750	Basic Software Service to Premium Software Service ISM
NTM463AB	A0874751	Advanced Software Service to Premium Software Service ISM
<u>Software Delivery Packages</u>		
NTM400AC	A0887878	Succession Programmed Software Daughterboard Release 2.0
NTM400BC	A0887879	Succession Software Delivery Card Release 2.0
	P0989745	GENERAL RELEASE BULLETIN for Succession Release 2.0
	P0989746	INSTALLERS CHECKLIST for Succession Release 2.0
<u>Virtual Trunk Extensions</u>		
NTM483AA	A0887896	1 Virtual Trunk Extensions ISM
	P0887099	RadVision H.323 port - 1 RTU
<u>IP Extensions</u>		
NTM450AA	A0861132	8 Basic Services IP Extensions ISM
NTM451AA	A0861133	8 Advanced Services IP Extensions ISM
NTM452AA	A0861134	8 Premium Services IP Extensions ISM
<u>Analog Extensions</u>		
NTM450BA	A0861135	8 Basic Services Analog Extensions ISM
NTM451BA	A0861136	8 Advanced Services Analog Extensions ISM
NTM452BA	A0861137	8 Premium Services Analog Extensions ISM
<u>Class Extensions</u>		
NTM469AA	A0874840	8 Basic Services Class Extensions
NTM470AA	A0874841	8 Advanced Services Class Extensions
NTM471AA	A0874842	8 Premium Services Class Extensions
<u>Analog to Class Upgrade:</u>		
NTM472AA	A0874843	Upgrade 8 Analog to Class Extensions ISM
<u>Digital Extensions</u>		
<i>This software code is used to increment the Digital Telephone ISM for the following applications: Remote Office 9150, PC Attendant Console, MIXX ISM (MICA, MICB, MIPCD, MIVS), 802.11 Wireless IP Gateway, Symposium Voice Services and CallPilot Mini and Digital Telephones</i>		
NTM450HA	A0887897	8 Basic Services Digital Extensions ISM
NTM451HA	A0887898	8 Advanced Services Digital Extensions ISM
NTM452HA	A0887899	8 Premium Services Digital Extensions ISM
<u>Call Centre Agents</u>		
NTM450DA	A0861141	1 Basic Services ACD Agent
NTM451DA	A0861142	1 Advanced Services ACD Agent
NTM452DA	A0861143	1 Premium Services ACD Agent

ENG. CODE	CPC	SCSE 1000 PRODUCT DESCRIPTION
<u>Other Codes</u>		
NTM458AA	A0861627	Survivability
NTM459AA	A0861628	RAN Broadcast (4 units)
NTM460AA	A0861629	MUSIC Broadcast (30 units)
NTM482AA	A0885347	Electronic Brandlining - Display Customization (for North America)
<u>Software Exception Packages</u>		
NTHU1003	A0875379	DISA – Direct Inward System Access - Option 22

Branch Office Software order codes

ENG. CODE	CPC	SCSE 1000 PRODUCT DESCRIPTION
<u>Branch Office Base Software</u>		
NTMP50PC	A0888824	Succession Branch Office N.A Software Release 2.0
	P0887099	RadVision H.323 port - 1 RTU - Quantity: 30
<u>Software Delivery Packages</u>		
NTMP50AC	A0888810	Succession Branch Office Programmed Software Daughterboard Release 2.0
NTMP50BC	A0888812	Succession Branch Office Software Delivery Card Release 2.0
<u>Virtual Trunk Extensions</u>		
NTM483AA	A0887896	Branch Office comes pre-configured with 30 Virtual Trunks. Use NTM483AA - 1 Virtual Trunk Extensions ISM to purchase more if required
	P0887099	RadVision H.323 port - 1 RTU
-		<u>Branch Digital Extensions ISM:</u>
NTM487AA	A0995850	8 Branch Digital Extensions ISM
<u>Software Exception Packages</u>		
Use the CSE R2 software Exception order codes as required to order exceptions packages		

ISM Parameters

CALL SERVER ISM PARAMETERS	Region	Main Office Base	Main Office Increments	Branch Office Base	Branch Office Increments
TNS	All	5000	n/a	5000	n/a
ACDN	All	300	n/a	300	n/a
AST	All	1000	n/a	400	n/a
LTID	All	0	n/a	0	n/a
RAN_CON	All	0	4	120	n/a
RAN RTE	All	500	n/a	120	n/a
MUS_CON	All	0	30	120	n/a
BRAND	All ex. EMEA	0	1	2	n/a
BRAND	EMEA	0	0	0	n/a

CALL SERVER ISM PARAMETERS	Region	Main Office Base	Main Office Increments	Branch Office Base	Branch Office Increments
ACD AGENTS	All	10	1	300	n/a
ANALOGUE TELEPHONES	All	0	8	128	n/a
ATTENDANT CONSOLES	All	16	n/a	16	n/a
BRI DSL	All	150	n/a	150	n/a
CLASS TELEPHONES	All ex. EMEA	0	8	128	n/a
CLASS TELEPHONES	EMEA	0	0	0	n/a
DATA PORTS	All	2500	n/a	2500	n/a
DIGITAL TELEPHONES	All	0	8	0	8
INTERNET TELEPHONES	All	0	8	400	n/a
PHANTOM PORTS	All	2500	n/a	400	n/a
WIRELESS TELEPHONES	All	0	8	0	n/a
WIRELESS VISITORS	EMEA & AP	0	8	0	n/a
ITG ISDN TRUNKS	All	0	1	30	1
TRADITIONAL TRUNKS	All	2500	n/a	120	n/a
TMDI D-CHANNELS	All	64	n/a	64	n/a
SURVIVABILITY	All	1	1	0	n/a

Note: n/a means not applicable

Ordering Rules

Product Capacity/Limitations:

- AC power only is supported on Succession CSE 1000, Release 2. DC power is not supported.
- 100BaseT only is supported on Succession CSE 1000, Release 2. 100BaseF is not supported.
- A single Succession CSE 1000 Call Server can support up to 1000 Internet Telephones, which include i2002, i2004 and i2050 software phones. In addition, analog and digital telephones and trunks can be provisioned in the Media Gateways and Branch Offices. Larger line sizes can be achieved by networking multiple Call Servers together.
- One Signaling Server can support up to 200 simultaneous virtual trunk connections. Up to 600 simultaneous virtual trunk connections can be achieved per IP Telephony Node by using up to 3 Signaling Servers.

If more than 200 Virtual Trunks are configured, the number of IP telephones that can be configured may have to be reduced. The aggregate number of IP ISMs, Virtual Trunks, and Phantom TNs cannot exceed 1248.

- Each Gatekeeper can support up to 10,000 users per network (with multiple Call Servers) and up to 256 CSE 1000 systems/H.323 endpoints.

Product Rules:

General Considerations:

- For new system orders, customers must purchase the Succession Communication Server 0 Line, 0 Trunk Release 2.0 marketing package (NTDU21AD). This package includes one Call Server, one Signaling Server and ancillary components.
 - Separate AC power cords must be ordered/provisioned for the Call Server and Signaling Server.
 - The power cords are not interchangeable.
 - System Documentation is provided in this package.
 - Customers must choose one of the Base software codes (Basic, Advanced or Premium) for all new system orders. In North America, customers would need to choose from
 - NTM400MC – Basic
 - NTM400NC – Advanced
 - NTM400PC – Premium.
 - A minimum of 16 Internet Telephone ISMs (Basic, Advanced or Premium) must be purchased along with the NTDU21AD package.
- When ordering the Media Gateway or Media Gateway Expansion marketing packages, the AC power cords (NTTK14AA) must also be ordered in addition to the package.
- A Signaling Server is required for all Succession CSE 1000, Release 2 orders.
- A single Succession CSE 1000 Call Server can support up to 1000 Internet Telephones, which include i2002, i2004 and i2050 software phones. Larger line sizes can be achieved by networking multiple Call Servers together.
- A single Call Server can support up to four Media Gateways, interconnected via 100BaseT Ethernet cables. Each Media Gateway can support one Media Gateway Expansion, interconnected

via copper cable. The Media Gateways can support analog and digital telephones and trunks, up to the maximum capacity of the circuit card slots (maximum of 32 slots per Call Server). Note that some of these card slots will be required for Succession Media Cards and other service circuits.

- The Call Server comes equipped with one 100BaseT Dual IP Daughterboard, which supports up to two Media Gateways and two Gateway Expansions. If an additional Media Gateway is required, a second 100BaseT IP Daughterboard kit must be ordered separately (NTDU19AA) and installed on the SSC card in the Call Server.
- The Media Gateway package includes a 2-metre length of 100BaseT crossover cable (NTTK34AA), which permits a “point-to-point” connection between the Call Server and Media Gateway. Cables to support other customer premise LAN configurations must be supplied by the customer, noting that maximum separation is 100 metres from the LAN equipment.
- Early versions of Meridian Configurator do not calculate the number of Virtual Trunks or DSP channels on Media Cards required. Please see Appendix 1 of this Bulletin for assistance in calculating the appropriate values. Meridian Configurator will shortly be updated to include the necessary calculations.
- Systems requiring more than one Call Server to service a single site generally require special engineering to attain the optimum configuration. Meridian Configurator and other tools will contain a reference to engineering assistance.

Software Considerations

- IP telephones must be purchased separately from available packages. Customers will need to purchase one of three available Succession CSE 1000 IP Extensions options: NTM450AA - 8 Basic Services IP Extensions; NTM451AA - 8 Advanced Services IP Extensions; or NTM452AA - 8 Premium Services IP Extensions. This parameter will enable configuration of 8 IP telephones at the appropriate services level.
- The following Digital set emulating applications require the provisioning of Digital Telephone ISMs as per the above ordering rule: Remote Office 9150, PC Attendant Console, MIXX portfolio (MICA, MICB, MIPCD, MIVS), 802.11 Wireless IP, Symposium Voice Services and CallPilot Mini.
- Survivability is automatically enabled with the first Media Gateway purchased. Survivability is optional for all additional Media Gateways and is available via the Survivability order code - NTM458AA.
- All CSE 1000 Software Order codes defined in Release 2.0 apply to both new and existing systems (i.e., there are no longer expansion codes required to increase specific functional capabilities on existing system - the same Software order code applies for both new and existing systems.)

Signaling Server Considerations

- At least one Signaling Server is required for each Succession CSE 1000 Release 2.0 system. The Signaling Server provides 3 key functions on behalf of Release 2.0 systems:
 - Internet Telephone Terminal Proxy Service (TPS)
 - Virtual Trunks via the H.323 Gateway software
 - H.323 Gatekeeper (Primary, Alternate or Failsafe)

No keycode or ISM is required to enable the Signaling Server applications.

- One Signaling Server is required for each Succession Branch Office node. The Signaling Server provides functions on behalf of Branch Office systems for:
 - IP telephone TPS in the event of losing IP connectivity between Branch and Main Office sites
 - Virtual Trunks via the H.322 Gateway software.

No keycode or ISM is required to enable the Signaling Server applications in Branch Office nodes.

- For each Signaling Server, there is the option of adding an additional Signaling Server within its IP Telephony Node for redundancy. No keycode or ISM is required to enable the redundancy of the Signaling Server applications.
- Additional Signaling Servers may be provisioned for the following reasons:
 - For each Signaling Server, there is the option of adding an additional Signaling Server for redundancy.
 - The Signaling Server includes the Gatekeeper software co-resident with the other applications. However, customers may choose to have a dedicated Signaling Server running only the Gatekeeper software for larger networks. Multiple Gatekeepers may also be provisioned for very large or geographically dispersed networks.
 - Additional Virtual trunks can be supported with the addition of Signaling Servers. Up to 3 Signaling Servers can be supported on the Main system which will allow up to 600 Virtual trunks.

Gatekeeper Considerations

- A network consists of 1 or more H.323 Zones. Each H.323 Zone requires 1 Primary Gatekeeper configured, and optionally 1 Alternate Gatekeeper for redundancy.
- The Primary and Alternate Gatekeeper do not need to be associated with the same Call Server. For example, Call Server A could have the Primary Gatekeeper configured on their Signaling Server, and Call Server B could have the Alternate Gatekeeper.
- The Gatekeeper can co-reside with the other applications on the Signaling Server or be on a standalone Signaling Server.
- The Gatekeeper can be set up as one of: Primary or Alternate or Failsafe.

Virtual Trunk Considerations

- One Signaling Server can support up to 200 simultaneous virtual trunk connections. Up to 600 simultaneous virtual trunk connections can be achieved per IP Telephony Node by using up to 3 Signaling Servers.
- Customers must purchase incremental Virtual Trunk extensions - 1 for each virtual trunk configured at the local node. The number of Virtual trunks provisioned depends on the number of users that require simultaneous access to remote nodes that support Virtual Trunk (other Succession CSE 1000 Release 2 nodes, Meridian 1's with IP Trunk 3.0, BCM 3.0)
- Customers provisioning Virtual Trunks must purchase the orderable software code - NTM483AA.

Succession Media Card Packages Considerations

- No keycode or security device is required to enable any of the Circuit Switched to IP Gateway channels (a.k.a Voice Gateway Media channels) available on either the 8 or 32 Port Succession Media Card packages.
- A maximum of four 8 or 32 Port Succession Media cards may be configured on each Media Gateway, on each Media Gateway Expansion, or on each Branch Office. There is no configuration restriction on provisioning any combination of 8 or 32 port cards.
- A PC Maintenance cable (NTAG81CA) is not shipped with the Succession Media Card packages. One is shipped with each Media Gateway and Succession Branch Office. Alternatively, the customer may order via the Merchandise process as required for replacement or other requirements.

Succession Media Card 32 Port – IP Line 3.0/Voice Gateway

- This package provides 32 Voice Gateway Media channels, which translate voice between circuit switched and IP channels. The required number of Voice Gateway channels depends upon customer requirements, specific to number of IP users, PSTN blocking ratio, local conferencing, digital lines, analog lines, etc. For example: 150 local users x 20% PSTN Blocking ratio + 1 FAX + 1 Analog set requires 32 VGM channels.
- If this package is being used to provide fail-over Terminal Proxy Service on the Succession Media Card in the event of Signaling Server failure, then the maximum number of IP users registered per card is 128.

Succession Media Card 8 Port – IP Line 3.0/Voice Gateway

- This package provides 8 Voice Gateway Media channels, which translate voice between circuit switched and IP channels. The required number of Voice Gateway channels depends upon customer requirements, specific to number of IP users, PSTN blocking ratio, local conferencing, digital lines, analog lines, etc. For example: 30 local users x 20% PSTN Blocking ratio + 1 FAX + 1 Analog set requires 8 VGM channels.
- If this package is being used to provide fail-over Terminal Proxy Service on the Succession Media Card in the event of a Signaling Server failure, then the maximum number of IP users registered per card is 32.

Succession Branch Office Considerations

- Customers must purchase the Succession Branch Office 0 Line, 0 Trunk Release 2.0 marketing package (NTDU22DB). This package encompasses one Branch Office hardware package comprising chassis, cable kit, programmed Software daughter board, plus one Signaling Server and ancillary components.
 - Separate AC power cords must be ordered/provisioned for the Branch office chassis and Signaling Server.
 - The power cords are not interchangeable.
 - Includes the New Install Documentation Kit is (NTLH80AE)

Note: A Signaling Server is included with the Branch office 0 Line, 0 Trunk package.

- Customers must purchase the Software code for the Succession Branch Office Features Package - NTMP50PC whenever the above Branch Office package is purchased. Customer must purchase the software feature package code that corresponds to that Market Region.
- Customers should determine the required size of the Branch Office in order to properly configure and provision. The following guidelines assist in determining appropriate provisioning.
 - Determine number of users located at the local Branch Office. A maximum of 400 IP users can be supported at the Branch Office, but note that this counts against the maximum for the Main office which is limited to 1000. The Main Office can support a maximum of 1000 IP users between it and all connected Branch Offices. For Internet Telephones at the Branch Office, the IP ISM's must be purchased on the Main system.
 - Determine the number of local analog or digital PSTN trunks required at the Branch Office. The number of the trunks provisioned will depend on the local PSTN Blocking ration. E.g., 40 users times 20% blocking requires 8 PSTN Trunks. The Branch Office can support a maximum of 92 T1 trunks or 120 E1 trunks. There must be a clock controller if the configuration includes a Digital trunk.
 - As a general rule, the customer must provision one Virtual Trunk extension for every one PSTN Trunk provisioned, to avoid unnecessary blocking of the PSTN trunks. All Branch Offices are provided with 30 Virtual trunk ISMs by default. For larger Branch Offices (>30 PSTN trunks), the customer should purchase 1 incremental Virtual Trunk for every PSTN provisioned beyond 30. A maximum of 200 Virtual Trunks (i.e. 1 Signaling Server) is permitted for each Branch Office.
 - Determine the number of analog lines required for local FAX, modems, analog sets. The recommended limit is 16, which corresponds to the number of analog ports with one Analog Line Card.
- The Branch Office will support expansion to a maximum of eight slots via the Media Gateway and Gateway Expansion.
- Both the 32-port and 8-port Succession Media Card are orderable on the Branch Office as well as on the Main site.
- Customers must purchase the Succession Media Gateway Expansion (connected via copper cable) when the configuration requires more than 4 slots for the Branch Office. Digital trunks are not supported in the Media Gateway Expansion.
- A Branch Office configuration cannot be extended by provisioning a second Media Gateway.
- Succession Branch Offices can operate independently of the Call Server equipped Main office in the event of lost IP connectivity. Branch Offices are not intended to provide extended service in standalone mode. After 14 days the Branch Office service will revert to a lower grade of service (e.g., frequent reset of the IP terminals) and display a License Violation message at the local IP sets.
- No keycode or ISM increment is required to enable survivability of users at the Branch Office. Operation in standalone mode in the event of lost WAN connectivity to the Main Office is enabled by the provisioning the IP Line 3.0 Terminal Proxy Service on the Signaling Server.
- The following applications are not supported at the Branch Office. These applications may be configured at the Main Office and can be utilized by the IP users located at the Branch Office.
 - Remote Office
 - Wireless sets: DECT and 802.11 Wireless IP Gateway
 - Symposium
 - MIXX Portfolio, excepting MICB

- The following applications are supported at the Branch Office:
 - OTM 2.0 (OTM 2.0 cannot be ordered on Branch office orders.)
 - MICB
 - Call Pilot Mini & Call Pilot 201i
 - Attendant Console

Note: Both IP sets and Digital sets are supported on the Branch.

- The following software codes are the only applicable/orderable codes at the Branch Office:
 - NTMP50PC – Succession Branch Office N.A. Software – Release 2.0 – Mandatory with all Branch orders
 - NTM483AA – 1 Virtual Trunk ISM (required only to go beyond the 30 default ISM's)
 - NTM487AA – 8 Branch Digital Enabler ISM
- The optional software exception packages are orderable on the Branch Office as well as on the Main system.

Upgrades:

Upgrades from Succession CSE 1000, Release 1.X to Release 2

- For upgrade orders, customers must purchase the Signaling Server, as per the Ordering Rules for Succession Signaling Server – Release 2.0 marketing package (NTDU27CB). Documentation updates and the upgraded software are available via the Succession Software Upgrade - Release 1.x to Release 2.0 marketing package (NTM401AC). Along with this package, the customer must purchase the Release 2.0 S/W Upgrade Administration Charge (keycode) applicable to the market region: for NA - NTM402AA.
- Software X21 Release 2.0 or higher, in conjunction with the NTTK25AA software daughter-board is required on the Call Server, Media Gateways and Succession Branch Offices. The machine type is 21 and the generic is 21 (2121).
- The current feature set (Basic, Advanced or Premium) will be maintained unless a Software Services Upgrade Package is ordered in addition to this package.
- The PC Card, which contains the Global Software, must be acquired separately by:
 - Purchasing the Succession Software Delivery Card Release 2.0 - NTM402BC, or
 - Distributor can program an existing PC card by downloading software from the Internet via Nortel Network's Customer Support website <<http://www.nortelnetworks.com>> Under Support - Choose Downloads)
 - Distributor can program an existing PC card by copying the software from an existing PC card.
- The existing CSE 1000, Release 1.0 Call Server Dongle ID is required for all upgrade orders.
- The Lineside 2.x software application resident on the existing ITG Pentium Line cards - NTZC80AA, must be upgraded to the IP Line 3.0 application.
- The NTDK20GA is the current vintage of the SSC shipped with new Succession CSE 1000 Release 2 Call Servers, Media Gateways and Succession Branch Offices. It is NOT a requirement to upgrade the older NTDK20FA version of the Succession Server Card (SSC) card on either the Call Server or the Media Gateways when upgrading from Succession CSE 1000 Release 1 to Release 2.

- NTKK25AA is the current vintage of software daughterboards shipped with the new Succession CSE 1000 Release 2 Call Servers, Media Gateways and Succession Branch Offices. It is NOT a requirement to replace the older NTKK13AA software daughterboards on either the Call Server or Media Gateway as the NTKK13AA is still supported on Release 2.
- Customers upgrading to Release 2.0 from Release 1.x should note that Media Gateways already provisioned (NTDU22AB or AA with Media Gateway Chassis NTDU14AA) will still be restricted to 3 card slots even after the software upgrade to release 2.0. Newly provisioned Release 2.0 Media Gateways (NTDU22AD with Media Gateway Chassis NTDU14CA) will enable 4 card slots.
- Customers with older vintage Media Gateways must note that Succession CSE 1000 Release 2.0 Ordering and Configuration rules will assume 4 provisionable slots per Media Gateway. Hence for Customers expanding systems that were originally delivered as Succession CSE 1000 Release 1.x systems, care should be taken to review any resulting order list to ensure that there are sufficient available slots to provision the expanded hardware.
- OTM 2.0 is the minimum release required to manage a Succession CSE 1000 Release 2.0 system. Customers must upgrade to OTM 2.0 if currently using prior releases of OTM.

Prerequisites

- The Call Server/Media Gateway Software - X21, Release 2.02
- Signaling Server – 2.00.74 software
- IP Line Application – 3.00.74
- IP Telephone set firmware – 1.39
- i2050 software telephone - v 299
- 8051 XAController firmware of SMC Cards – 6.4 for SMC card; 5.7 for ITG-P card
- Software Daughterboard – Minimum is NTKK13AA; product is shipped with NTKK25AA
- SSC card – Minimum is NTDK20FA; product shipped with NTDK20GA

These issue numbers and codes may be changed at any time as design and engineering considerations require.

Product Bundling & Interdependency requirements:

- For new system orders, customers must purchase the Succession Communication Server 0 Line, 0 Trunk – Release 2.0 marketing package (NTDU21AD). This package encompasses one Call Server, one Signaling Server and ancillary components.
 - Separate AC power cords must be ordered/provisioned for the Call Server and Signaling Server.
 - The power cords are not interchangeable.
 - System Documentation is provided in this package.
 - Customers must choose one of the Base software codes (Basic, Advanced or Premium) for all new system orders. In North America, customers would need to choose from
 - NTM400MC – Basic
 - NTM400NC – Advanced
 - NTM400PC – Premium.

- When ordering the Media Gateway or Media Gateway Expansion marketing packages, the AC power cords (NTTK14AA) must also be ordered in addition to the package.
- The Call Server and Signaling Server do not contain Trunk cards or Line cards. All hardware required to support trunk and line capabilities resides in the Media Gateways and Media Gateway Expansions. Trunks cards and Line cards must be ordered separately.
- There must be a clock controller for every Media Gateway or Branch Office equipped with a Digital trunk.
- In addition to the standard CallPilot order codes, all CallPilot orders for Succession CSE 1000 must include the following code to ensure your new CallPilot functions with your Succession CSE 1000 system:
 - Call Pilot Integration/Connectivity Code: NTZE39JB

Please refer to the Sales and Marketing Bulletin "CallPilot 2.0; Models & Ordering Procedures" for full details on ordering CallPilot 2.0.

Repair and Return Policies

Equipment return options

Nortel Networks offers various types of product return options:

- **Restocking** - return of new unused equipment for credit within 60 days of ship date
- **Repair** - return of damaged or defective equipment for repair
- **Advance Replacement** - replacement equipment shipped in support of emergency repairs and some updates/upgrades
- **Defective on Arrival (DOA) Replacement** - replacement equipment shipped in support of DOAs

For a complete description of the product return options, please refer to the Succession CSE 1000 Price Catalogue or the Repair, Return & Warranty Package. The Repair and Return policies are identical to those on Meridian 1, and have not materially changed since Succession CSE 1000 Release 1.

Spares List

The following individual spare parts are available, and many are common to Meridian 1. Channel Partners should assess which are required to be stocked specifically for Succession CSE 1000 Release 2.0.

It is probably unnecessary to stock spares of passive components, such as cables or hardware items, and the recommendation is made accordingly.

Critical spares are those that are for items which might fail whose failure will cause a significant portion of the system to be out of service, and should be stocked in locations easily accessible to technicians supporting live customer systems.

The tables also list the items which can be returned for repair service.

Call Server Spares

Item	Product Code	Recommend Sparing	Critical?	Failures per 10 ⁶ hours	Repairable?
Succession Call Server shelf Assembly	NTDU30BA A0888722	Yes	Yes	0.97	Yes
Succession Call Server Chassis Cable Kit	NTDU20AA A0858762	No	No	N/A	No
Dual Port 100BaseT IP Daughterboard	NTDK83AA A0745218	Yes	Yes	0.342	Yes
Succession Controller Card	NTDK20GA A0879083	Yes	Yes	0.137	Yes
RJ45 M-to-M Ethernet Cable Assembly	NTDU0606 A0856664	Limited	No	N/A	No
Succession Software Delivery Card	NTM400BC A0887879	Yes	No	N/A	No
Blank Software Daughterboard	NTTK25AA A0842230	No	No	0.467	Yes
North American Power Cord	NTTK14AA A0781921	Limited	No	N/A	No

Media Gateway/Media Gateway Expansion Spares

Item	Product Code	Recommend Sparing	Critical?	Failures per 10 ⁶ hours	Repairable?
Succession Media Gateway Chassis	NTDU14CA A0884572	Yes	Yes	0.817	Yes
Succession Media Gateway Chassis Cable Kit	NTDU25BA A0884596	No	No	N/A	No
Single 100BaseT IP Daughterboard	NTDK99AA A0777325	Yes	Yes	0.372	Yes
PC Maintenance Cable	NTAG81CA A0655007	No	No	N/A	No
19 inch Chassis Rack Mount Kit	NTTK09AA A0780625	No	No	N/A	No
100BaseT Extension Cable (2m)	NTDK8305 A0781621	Limited	No	N/A	No

100BaseT Crossover Cable	NTDK34AA A0793725	Limited	No	N/A	No
Succession Media Gateway Expansion Chassis	NTDU15CA A0884591	Yes	Yes	0.680	Yes
Succession Media Gateway Expansion Chassis Cable Kit	NTDK89AA A0774112	No	No	N/A	No
North American Power cord	NTTK14AA A0781921	Limited	No	N/A	No

Succession Media Card Spares

Item	Product Code	Recommend Sparing	Critical?	Failures per 10 ⁶ hours	Repairable?
Succession Media Card 32 Port	NTDU40BA A0888759	Yes	Yes	1.65	Repair NTVQ01BA
Succession Media Card 8 Port	NTDU40AA A0888756	Yes	Yes	1.65	Repair NTVQ01AA
ELAN, TLAN, RS232 L Adapter	A0852632	Limited	No	N/A	No
ITG EMC Shielding Kit	NTVQ83AA A0870556	No	No	N/A	No
PC Maintenance cable	NTAG81CA A0655007	No	No	N/A	No

Signaling Server Spares

Item	Product Code	Recommend Sparing	Critical?	Failures per 10 ⁶ hours	Repairable?
Succession Signaling Server Assembly	NTDU27BA A0887812	Yes	Yes	2.29	Repair NTDU27AA
Succession Signaling Server Software CD Rom Kit	NTDU80AA A0887817	No	No	N/A	No
Signaling Server Power Cord	A0292928	Limited	No	N/A	No

Optivity Telephony Manager 2.0 Spares

Item	Product Code	Recommend Sparing	Critical?	Failures per 10 ⁶ hours	Repairable?
OTM 2.0 CD Software	NT8R58AE A0889561	No	No	N/A	No
OTM 2.0 CD Documentation	NT8R58BE A0877857	No	No	N/A	No

N/A means “Not Applicable”, and relates to items that do not have calculable failure rates.

Accreditation Program

Succession CSE 1000 is distributed only through accredited Channel Partners. The Succession CSE 1000 Accreditation Program is based on 3 types of requirements:

- Training
- Lab Systems
- Support and Service

Through the accreditation process, Channel Partners are authorized to sell and service Succession CSE 1000. Emphasis is on ensuring Nortel Networks channel partners have the appropriate skill set and hands-on experience to support converged voice/data offering, with the primary goal of high end-customer satisfaction.

A copy of the Accreditation Program document can be found on the Partner Information Center web site on the Channel Readiness Site, of the Partner Information Center, under <http://www.nortelnetworks.com/pic> Select Channel Readiness, Current Launches, Succession CSE 1000 Release 2.0, Offer Readiness, Section 4.

Training

Nortel Networks' North American course offerings have been updated to include the Succession Communication Server for Enterprise 1000 product. Course descriptions, schedules, and other related training information can be viewed online at

www.get.globalknowledge.com/norteltraining

Global Knowledge is Nortel Networks' premier training partner for North America. Links from the Nortel Networks home page (<http://www.nortelnetworks.com>) are also available by choosing Customer Support/ Training/North America/Catalog Search/Product Family:All/Products: Succession CSE 1000.

The following Succession CSE 1000-specific courses are available:

Course No.	Title	Format; Target Audience
0780C	Succession CSE 1000 Installation, Maintenance and Configuration	ILT 5 Days I, MT, MA, ICP, SE
0784C	IP Networking for Succession CSE 1000	ILT 3 Days I, MT, MA, ICP, SE
0785F	What's New for Succession Communication Server for Enterprise 1000 Release 2.0 (Technicians)	IEL 6 Hours S, SE
0194F	What's New for Succession CSE 1000 Release 2.0 for Sales	IEL 4 hours S, SE
0195F	Succession Portfolio Overview for Sales	IEL 6 Hours S, SE
0360C	Succession Fundamentals: Enterprise Voice Over IP	ILT 2.5 Days All

Legend:

Format: ILT (instructor-led training); IEL (Instructor-led training via virtual classroom); KP (self-paced knowledge product); V (video); ICW (Instructor certification program questions and labs); PB (Nortel Product Bulletin Only); PKT (Product Knowledge Transfer); BP (Certification exam blueprint).

Target Audience Types: S Sales; SE Sales Engineers; I Installers; MT Maintenance technicians; MA Administrators; SLS second-level support; ICP instructor certification program.

For more details of the training available, please see the Succession CSE 1000 Release 2 Sales and Marketing Bulletin.

APPENDICES

APPENDIX 1

Virtual Trunks and Voice Gateway (DSP) port Calculation

The early version of Meridian Configurator is not able to calculate a suggested value for the number of Virtual Trunks and DSP ports needed in a Succession CSE 1000 solution. This will be corrected in the December 2002 change control. Until this time, please use the following guidelines to help determine how many Virtual Trunk ISMs and DSP ports will be required when placing your order.

Voice Gateway (DSP) port Calculation

Voice Gateway ports (DSP) resources are required whenever a call goes from an IP terminal to the PSTN, Analog or Digital sets, conference facilities or an application such as CallPilot. Voice Gateway (DSP) ports translate voice between IP and circuit switched channels.

For example, the following lists applications where voice gateway ports would be required with possible suggested values a user might want to consider:

Digital trunks

- PRI (30 voice gateway (DSP) ports per E1 PRI; 24 voice gateway ports per T1)
- BRI (16 voice gateway (DSP) ports. One for every B channel)

Analog Trunks

- Analog Trunk (8 voice gateway (DSP) ports)
- Universal Analog Trunk (8 voice gateway (DSP) ports)
- E&M/AC15/RAN/Page/TIE Trunk (4 voice gateway (DSP) ports)

CallPilot

- 2.0 or Mini (1 voice gateway (DSP) port for every CallPilot Channel)

MIxx

- MIRAN (1 voice gateway (DSP) port for every MIRAN port).MICB (1 voice gateway (DSP) port for every MICB port).
- MIPCD (1 voice gateway (DSP) port for every MIPCD port)

Analog and Digital sets

- Analog users (provision voice gateway (DSP) ports for 25% of users.)
- Digital users (provision voice gateway (DSP) ports for 25%of users)

The 25% value would vary depending on the calling patterns anticipated on the system.

Conference facilities

- Conference facilities on SSC, there are 32 conference ports on the SSC, and 32 on each IP daughterboard, for a total of 96. (For each 32 conference ports, provision 8 voice gateway (DSP) ports. This refers to conference facilities on Call server SSC & associated IP daughterboards).**IVR Ports**
- IVR systems usually connect to the system over line side T1/E1 ports. Thus, the voice gateway (DSP) ports requirement is already covered in trunks calculation above.

Agent Greeting

- Agent Greeting (one voice gateway (DSP) port for each Agent Greeting port).

Additional considerations

- For Call Centers, additional Voice Gateway (DSP) ports may be required. Engineer additional DSP resources as appropriate to meet more traffic-intensive requirements. For example, it may be necessary to engineer DSP resources at a higher percentage for Digital Agents than for normal digital users.
- For Upgrades and Expansions, calculate the required number of voice gateway (DSP) ports based on the additional applications and interface cards required. Use the above as a guide.

Finally, based on the total number of DSP ports required, you can then select how many Succession Media Cards need to be ordered. You have a choice of ordering 32-port Succession Media Cards or 8-port Succession Media Cards.

Virtual Trunks Calculation

Virtual Trunks are only needed if you are using IP Peer Networking to other systems or Branch Offices connected to this system.

Virtual Trunks need to be provisioned on the Main System as well as on any Branch Office system.

Virtual Trunk Calculation for Main system

In order to assist in calculating the required number of Virtual Trunks on the Main system, the following points will need to be taken into consideration:

- The number of simultaneous calls that will be maintained between this system and the other H.323 endpoints over the IP Peer Network (i.e. other CSE 1000 Call Servers, Meridian 1 via IP Trunk 3.0, BCM 3.0, etc.).
- The number of simultaneous calls that will be maintained between this system and all the Branch Offices for support of:
 - Analog Stations
 - Digital Stations
 - PSTN Trunks
- If a centralized CallPilot configuration will be supported from this system or in another location, please assess the number of simultaneous calls/messaging ports that are needed for CallPilot use.

Virtual Trunk Calculation for Branch Office:

Please note that all Branch Offices are provided with 30 default Virtual Trunk ISMs. Therefore, Virtual Trunk ISMs only need to be ordered on the Branch Office if the user wants to exceed the 30 default ISMs that are already included.

In order to assist in calculating the required number of Virtual Trunks on a Branch Office, the following points will need to be taken into consideration:

- The number of simultaneous calls that will be maintained between this Branch Office and any CSE 1000 or Branch Office for support of:
 - Analog Stations
 - Digital Stations
 - PSTN Trunks

- If a centralized Call Pilot configuration will be supported in another location, please assess the number of simultaneous calls/messaging ports that are needed for Call Pilot use.

General Notes

- Virtual trunks are required on each end of the call, i.e. if there are two CSE 1000 systems, virtual trunks are required on each system to carry the expected number of calls.
- Up to 200 Virtual Trunks are supported per Signaling Server. A Maximum of 600 Virtual trunks are supported per Main system (with 3 Signaling Servers) and a maximum of 200 Virtual Trunks are supported per Branch Office (with 1 Signaling Server).
- If more than 200 Virtual Trunks are configured, the number of IP telephones that can be configured may have to be reduced. The aggregate number of IP ISMs, Virtual Trunks and Phantom TNs cannot exceed 1248.
- The actual number of virtual trunks required must be calculated based on expected calling patterns between the various sites with the above guide as to where Virtual trunks are required.
- IP users in the Branch Office are registered to the assigned Main system (unless in Survival mode).

APPENDIX 2

Software Feature Packages

In the table below, a mark under the software service indicates the software feature package is included for North America. Where there is no mark, it indicates that the feature package is not included in the software service.

B – Basic Software Service

A – Advanced Software Service

P – Premium Software Service

Note that this is the standard Meridian 1 and Succession CSE 1000 packages table, current as of this software release. Some of the features listed may not be available on Succession CSE 1000 Release 2.

No.	Mnemonic	Package Name	B	A	P	No.	Mnemonic	Package Name	B	A	P
0	BASIC	Basic Call Processing	*	*	*	25	BAUT	Basic Authorization Code	*	*	*
1	OPTF	Extended PBX Features	*	*	*	26	CASM	Centralized Attendant Service (Main)	*	*	*
2	CUST	Multi Customer	*	*	*	27	CASR	Centralized Attendant Service (Remote)	*	*	*
3	AIOD	Auto-Ident. of Outgoing Calls				28	BQUE	Basic Queuing	*	*	*
4	CDR	Call Detail Recording	*	*	*	29	NTRF	Network Traffic Measurement	*	*	*
5	CTY	CDR on TTY	*	*	*	30	CMAC	Network Comm. Mgmt Center Interface			
6	CLNK	CDR on Data Link (No longer a package as of Rls 20B)				31	MCDR	Mini CDR			
7	RAN	Recorded Announcement	*	*	*	32	NCOS	Network Class of Service	*	*	*
8	TAD	Time and Date	*	*	*	33	CPRK	Call Park	*	*	*
9	DNDI	Do Not Disturb, Individual	*	*	*	34	SSC	System Speed Call	*	*	*
10	EES	End to End Signaling	*	*	*	35	IMS	Integr Messaging System Link	*	*	*
11	INTR	Intercept Treatment	*	*	*	36	ROA	Recorded Overflow Announcement	*	*	*
12	ANI	Automatic Number Identification	*	*	*	37	NSIG	Network Signaling		*	*
13	ANIR	ANI Route Selection	*	*	*	38	MCBQ	Network Call Back Queuing - Main		*	*
14	BRTE	Basic Routing	*	*	*	39	NSC	Network Speed Call		*	*
15	RPE1.5	Remote Peripheral Equipment 1.5				40	BACD	Basic ACD	*	*	*
16	DNDG	Do Not Disturb, Group	*	*	*	41	ACDB	ACD Pkg B	*	*	*
17	MSB	Make Set Busy	*	*	*	42	ACDC	ACD Pkg C		*	*
18	SS25	Special Services for 2500 Sets	*	*	*	43	LMAN	ACD Pkg C2. Load Mngt Reports		*	*
19	DDSP	Digit Display	*	*	*	44	MUS	Music	*	*	*
20	ODAS	Office Data Administration System	*	*	*	45	ACDA	ACD Pkg A	*	*	*
21	DI	Dial Intercom	*	*	*	46	MWC	Message Waiting Center	*	*	*
22	DISA	Direct Inward System Access				47	AAB	Automatic Answer Back	*	*	*
23	CHG	Charge Account for CDR	*	*	*	48	GRP	Group Call	*	*	*
24	CAB	Charge Account/Authorization Code	*	*	*						

No.	Mnemonic	Package Name	B	A	P
49	NFCR	New Flexible Code Restriction	*	*	*
50	ACDD	ACD Pkg D		*	*
51	LNK	ACD PkgD Auxillary Processor Link	*	*	*
52	FCA	Forced Charge Account	*	*	*
53	SR	Set relocation	*	*	*
54	AA	Attendant Administration	*	*	*
55	HIST	History File	*	*	*
56	AOP	Attendant Overflow Position	*	*	*
57	BARS	Basic Alternate Route Selection	*	*	*
58	NARS	Network Alternate Route Selection	*	*	*
59	CDP	Coordinated Dialing Plan	*	*	*
60	PQUE	Priority Queuing	*	*	*
61	FCBQ	Flexible Call Back Queuing	*	*	*
62	OHQ	Off Hook Queuing		*	*
63	NAUT	Network Authorization Code		*	*
64	SNR	Stored Number Redial	*	*	*
65	TDET	Tone Detector (Not supp't on Opt 11/No IPE version of MF tone detector)			
66	SCC	SL-1 TDET Special Common Carrier			
67	NXFR	Network Call Transfer		*	*
68	ATVN	AUTOVON			
69	ACDR	AUTOVON CDR			
70	HOT/EHOT	HOT Line Services/Enhanced HOT Line	*	*	*
71	DHLD	Deluxe Hold	*	*	*
72	LSEL	Automatic Line Selection	*	*	*
73	SS5	500 Set Features	*	*	*
74	DRNG	Distinctive Ringing	*	*	*
75	PBXI	PBX Interface for DTI/CPI (1.5Mb)	*	*	*
76	DLDN	Departmental Listed Directory #	*	*	*
77	CSL	Command Status Link	*	*	*
78	AMP	Automated Modem Pooling			
79	OOD	Optional Outpulsing Delay	*	*	*
80	SCI	Station Category Indication	*	*	*
81	CCOS	Controlled Class of Service	*	*	*
82	RESDB	Resident Debug			

No.	Mnemonic	Package Name	B	A	P
83	CDRQ	ACD CDR Queue Record	*	*	*
84	ATM	Automatic Trunk Maintenance (not supported on Option 11 or CSE 1000)			
85	CSLA	CSL with Alpha Signaling			
86	TENS	Multiple Tenant Service	*	*	*
87	FTDS	Fast Tone & Digit Switch	*	*	*
88	DSET	M2000 Digital Sets	*	*	*
89	TSET	M3000 Digital Sets	*	*	*
90	LNR	Last Number Redial	*	*	*
91	DLT2	M2317 Digital Sets	*	*	*
92	PXLT	Pretranslation	*	*	*
93	SUPV	Supervisory Attendant Console	*	*	*
95	CPND	Call Party Name Display	*	*	*
97	JCO	Japan CO Trunk			
98	DNIS	Dialed Number Identification Service	*	*	*
99	BGD	Background Terminal Facility	*	*	*
100	RMS	Room Status	*	*	*
101	MR	PPM / Message Registration	*	*	*
102	AWU	Automatic Wake Up	*	*	*
103	PMSI	Property Management System Interface	*	*	*
104	OPAO	Outpulsing of * and #			
105	LLC	Line Load Control	*	*	*
106	SLP	Station Loop Preemption			
107	MCT	Malicious Call Trace	*	*	*
108	ICDR	Internal CDR	*	*	*
109	APL	Auxillary Processor Link	*	*	*
110	TVS	Trunk Verification from a Station	*	*	*
111	TOF	ACD Timed Overflow	*	*	*
112	NKL	Notification Key Lamp			
113	IDC	Incoming DID Digit Conversion	*	*	*
114	AUXS	ACD D Auxillary Security		*	*
115	DCP	Direct Call Pickup	*	*	*
116	PAGT	ACD Priority Agent		*	*
117	CBC	Call by Call Service Selection	*	*	*
118	CCDR	Calling Line ID in CDR	*	*	*
119	EMUS	Enhanced Music	*	*	*

No.	Mnemonic	Package Name	B	A	P
120	PLDN	Group Hunt / DN Access to SCL			
121	SCMP	Station Camp On	*	*	*
122	COMDT	Common DAS/DPNSS DTRK Pkg			
123	DPNSS	DPNSS			
124	DASS2	DASS2			
125	FTC	Flexible Tones and Cadences	*	*	*
126	OPCB	Operator Call Back (China #1)			
127	BKI	Attendant Break In	*	*	*
128	MFC	Multi-Frequency Compelled Signaling			
129	DTI2	2 Mbit DTI	*	*	*
131	SUPP	International Supplementary Features			
132	TBAR	Trunk Barring	*	*	*
133	ENS	Enhanced Night Service	*	*	*
134	AFNA	Attendant Forward No Answer			
135	MFE	Multi-Frequency Socotel (France)			
136	JDMI	2 MB Digital Mux. Interface (Japan)			
137	LSCM	Local Steering Code Modification			
138	DTD	Dial Tone Detector			
139	FFC	Flexible Feature Codes	*	*	*
140	DCON	M2250 Attendant Console	*	*	*
141	MPO	Multi-Party Operations	*	*	*
143	ICP	Intercept Computer			
144	ABCD	16 - Button DTMF			
145	ISDN	ISDN Signaling	*	*	*
146	PRA	ISDN 1.5 Mbit PRA	*	*	*
147	ISL	ISDN Signaling Link	*	*	*
148	NTWK	Advanced ISDN Network Services	*	*	*
149	IEC	Inter-Exchange Carrier		*	*
150	DNXP	DN Expansion (7 digit)	*	*	*
151	CDRE	CDR Expansion (7 digit)	*	*	*
152	FXS	X25 ISDN/AP Server	*	*	*
153	IAP3P	ISDN Application Processor Third Party Vendors	*	*	*
154	PRI2	2 Mbit PRI	*	*	*
155	ACNT	ACD Activity Code		*	*

No.	Mnemonic	Package Name	B	A	P
157	THF	Centrex Switch Hook Flash	*	*	*
158	FGD	Feat Grp D - 8B	*	*	*
159	NAS	Network Attendant Service		*	*
160	FNP	Flexible Numbering Plan	*	*	*
161	ISDN INTL	ISDN Supplementary Features	*	*	*
162	SAR	Scheduled Access Restriction	*	*	*
163	MIN	Message Intercept	*	*	*
164	LAPW	Limited Access to Overlays	*	*	*
165	RPE2	2 Mbit RPE			
166	HOSP	Hospital Management-Rls 20/21			
167	GPRI	1.5/2.0 MBit Gateway DTI released PRI deferred	*	*	*
168	TMON	Traffic Monitoring (not supported on Option 11)			
169	COOP	Console Operations			
170	ARIE	Meridian Modular Telephone Sets	*	*	*
171	JTDS	Japan Tone & Digit Switch			
172	CPGS	Console Presentation Group Level Services	*	*	*
173	ECCS	Enhanced Controlled Class of Service	*	*	*
174	AAA	Attendant Alternative Answering	*	*	*
175	NMS	Network Message Service		*	*
176	DTOT	DID to Tie			
178	EOVF	ACD Enhanced Overflow		*	*
179	HVS	Meridian Hospitality Voice Services	*	*	*
180	DKS	Digit Key Signaling	*	*	*
181	SACP	Semi-Automatic Camp-On	*	*	*
182	TFM	Trunk Failure Monitor			
183	VNS 8B.2	Virtual Network Service			*
184	OVPL	Overlap Signaling	*	*	*
185	EDRG	Executive Distinctive Ringing	*	*	*
186	POVR	Priority Override / Forced Camp on	*	*	*
187	RPA	Radio Paging			
188	LIMF	L1-MFC Signaling			
189	SVCT	Supervisory Console Tones			
190	UK	UK Hardware Support			
191	SECL	Series call	*	*	*

No.	Mnemonic	Package Name	B	A	P
192	ORC-RVQ	Remote Virtual Queuing/Drop Back Busy- 8B		*	*
193	RCK	Ring Change Key			
195	FAXS	HiMail Fax Server Interface - 8B			
196	OHOL	On Hold on Loudspeaker - 20A			
197	FTA	French Type Approval-8B			
198	FFCSF	Boss Secretarial Filtering - 8B			
200	AINS	Automatic Set Based Installation	*	*	*
202	IPRA	International PRA (CO)	*	*	*
203	XPE	Extended Peripheral Equipment	*	*	*
204	XCT0	Enhanced Conf, TDS, and MFS Card	*	*	*
205	XCT1	Superloop Administration (LD 97)	*	*	*
206	MLWU	Multilanguage Wake-Up	*	*	*
207	NACD	Network ACD			*
208	HSE	Hospitality Screen Enh-8B	*	*	*
209	MLS	Meridian Link Server	*	*	*
210	MAID	Maid ID for room status - 8B	*	*	*
211	MLIO	Multilanguage CPND			
212	VIP	VIP Automatic Wake-Up - 8B	*	*	*
214	EAR	Enhanced ACD Routing -8B	*	*	*
215	CCRC	Cust Controlled Routing - 8B	*	*	*
216	BRI	ISDN Basic Rate Interface - 8B	*	*	*
218	IVR	Hold in Queue for IVR - 8B	*	*	*
219	MWI	MWI Interworking with DMS - 20A			*
221	CIST	Digital Trunk Interface / Three-Wire Analog (IPE) Trunk			
222	MSDL	Multi-Purpose Serial Data Link	*	*	*
223	FC68	Compliance for DID ANSWER SUPV	*	*	*
224	M911	M911 ENHANCEMENTS		*	*
225	CWNT	Call Waiting Notification		*	*
227	MSDL SDI	MSDL - SDI (Not Supp on Opt 11)- 20A			
228	STA	Single Terminal Access (Not Supp on Option 11) - 20A			
229	SSAC	Station Specific Auth Codes - 20A	*	*	*
230	MDP	Manufactured Delivered Patches (Not Supp Opt 11)			

No.	Mnemonic	Package Name	B	A	P
231	DNWK	DPNSS Network Services - 7C			
232	PEDM	Pulsed EAM (Indonesia, French Colisee)			
233	BRIT	BRI Trunk Application - 8B	*	*	*
234	CDR-NEW	New Format CDR - 8B	*	*	*
235	BRIL	BRI Line Application - 8B	*	*	*
236	ACRL	AC15 TIMED RECAL-20B	*	*	*
240	MCM	M1 CT2/CT2+ Mobility-20B	*	*	*
242	MUL	Multi User Login - Not supported Opt 11 - 20A	*	*	*
243	FM	Meridian 1 Fault management	*	*	*
245	SML	System Message Lookup (Not supp Opt 11 - Thor Pkg)-20A	*	*	*
246	VMB	Voice Mail Box - Not Supp. Opt 11	*	*	*
247	CLID	Call ID for Meridian Link - 20A	*	*	*
248	MPH	Meridian 1 Packet Handler - Not Supported on Option 11 - 20A			
249	M911 ENH			*	*
250	DPNA	Direct Private Network Access	*	*	*
251	SCDR	Station Activity Record - 20B	*	*	*
252	KD3	Spanish KD3 DID/DOD Interface-20A			
253	ARFW	Attn & Networkwide RCFW - 20A	*	*	*
254	PHTN	Phantom TN Operation - 20A	*	*	*
255	INBD	International nB+D - 20B			
256	ADMINSET	Set Based Administration Enhancements	*	*	*
258	ATX	Autodial Tandem Transfer - 20A	*	*	*
259	CDRX	CDR Enhancements - 20A			
261	EURO	Euro ISDN -20A			
262	SAMM	Standalone Meridian Mail - 20B			
263	QSIG	ECMA Q-Sig - 20A	*	*	*
283	UIGW	Universal ISDN Gateway			
284	DPNSS 189I	DPNSS 189I			
285	CHINA	Attendant Monitor			
286	REM_IPE	Carrier Remote IPE (not supported)			
288	DPNSS-ES	DPNSS Executive intrusion			

No.	Mnemonic	Package Name	B	A	P
289	ADSP	ACD Disconnect Supervision			
290	CCB	Collect Call Blocking			
291	NI2	NI-2 TR-1268 PRI Basic Call	*	*	*
292	CHTL	China Toll Call Loss Plan			
293	TAT	Trunk Anti-Tromboning			
294	BTD	Busy Tone Detection			
295	IPEX	IP Expansion	*	*	*
296	MAT	Network access to M1 management	*	*	*
297	MQA	Multiple Queue Assignment (not on opt11E)		*	*
298	CPIO	Opt 81 old Backplane			
299	CORE-NET	Opt 81C (New Backplane)			
301	CPP	Calling Party Privacy	*	*	*
302	MOSR	Mobility Server			
303	MMO	Mobility Microcellular			
304	ARDL	Automatic Redial (not Opt 11)			
305	QSIGGF	QsigGF Transport			*
306	CPRKNET	Call Park Networkwide	*	*	*
307	PAGENET	Call Page Networkwide	*	*	*
308	PTU	Preferential Trunk Usage			
309	MASTER	Euro ISDN Master Mode			
310	CPCI	Called Party Control	*	*	*
311	ICCM	Integrated Call Centre		*	*
312	TATO	Trunk Antitromboning		*	*
313	ISPC	Australian SPCs			
314	MMSN	Mobility Multisite Network			
315	SNMP_ALARM	SNMP Alarm integration	*	*	*
316	QSIG_SS	Qsig Sup. Services completion			*
321	QTN	Queue to NACD for CCR			*
323	EISDN_SS	EISDN Sup Services completion			
324	NGEN	New Generation foundation	*	*	*
325	DMWI	DPNSS Message Waiting			
326	CISMFS	CIS MF Shuttle Signaling			
327	RANBRD	RAN Broadcast	*	*	*
328	MUSBRD	Music Broadcast	*	*	*
329	ESA	Emergency Services Access	*	*	*

No.	Mnemonic	Package Name	B	A	P
330	ESA_SUP	Emergency Services Access Suppl.		*	*
331	ESA_CLMP	Emergency Services Access Calling		*	*
332	CNUMB	Class: Calling Number Delivery	*	*	*
333	CNAME	Class: Calling Name Delivery	*	*	*
334	NI-2 CBC	NI-2 Call by Call Service Selection	*	*	*
335	GTTC	Japan TTC Common Channel Signal.			
344	GCM				
345	UWIN	Universal Wireless Interactive Networking			
346	SMS				
347	TWR1	Taiwan R1 Modified Signaling			
348	MEET	MCDN End To End Transparency			*
349	ACLI	Information Notification Service for Japan			
350	MC32	Meridian Companion Enhanced Capacity	*	*	*
351	DBA	Data Buffering and Access	*	*	*
353	RUCM	Russian Call Monitoring SORM			
362	FDID	Flexible DID	*	*	*
364	NMCE	Meridian Communications Exchange Connectivity	*	*	*
365	FIBER_NETWORK	Fiber_Network (not Opt 11)			
366	PLUGIN	Plug-In			
367	BNE	Business Networking Express		*	*
368	CPP_CNI	Core Processor PII (not Opt 11)			
370	MSMN	Multi-Site Mobility Networking		*	*
371	KAP_AUT	Kapsh sidestream - Austria			
372	KAP_CR	Kapsh sidestream - CZ/SK			
373	KAP_HUNG	Kapsh sidestream - Hungary			
374	KAP_PL	Kapsh sidestream - Poland			
375	KAP_CIS	Kapsh sidestream - CIS			
376	KAP_ACD	Kapsh sidestream - ACD			
380	STS_MSG	M3900 series Set to Set Messaging	*	*	*
381	CDIR	Corporate Directory	*	*	*
382	VIRTUAL_OFFICE	Virtual Office	*	*	*

No.	Mnemonic	Package Name	B	A	P
383	R25 Lite	R25 Lite			
384	ATAN	Attendant Announcement	*	*	*
385	NI-2 NAME	NI2 Name Display (25.40)	*	*	*
386	M3900_ PROD- ENH	M3900 Productivity Enhancements (R25.40)	*	*	*
387	VIRTUAL _OFFICE_ ENH	Virtual Office Enhancements (R25.40)	*	*	*

No.	Mnemonic	Package Name	B	A	P
388	ACDE	ACD DN/CDN Expansion (R25.40)			*
389	PONW	Priority Nwk Override Nwk Bkin & Force Disc. (R25.40)			
390	SUCC_BR _OFFICE	Succession Branch Office			*

Last Page

This section is included to ensure that readers have the complete document.

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